APOCALYPSE 1945
The Destruction of Dresden

DAVID IRVING

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FOCAL POINT

David Irving is the son of a Royal Navy commander. Educated at Imperial College of Science & Technology and at University College London, he subsequently spent a year in Germany working in a steel mill and perfecting his fluency in the language. Among his thirty books the best-known include *Hitler's War*, *The Trail of the Fox: The Life of Field-Marshal Rommel*, *Accident, the Death of General Sikorski*, *The Rise and Fall of the Luftwaffe* and *Göring: a Biography.* He has translated several books by other authors. He lives in Grosvenor Square, London, and is the father of five daughters.

In 1963 he published his first English language book, *The Destruction of Dresden*. Translated and published around the world, it became a best-seller in many countries. The present volume, *Apocalypse 1945*, revises and updates that work on the basis of information which has become available since 1963.

Luftwaffe Hospital
Air Zone Command XVI
(10) Dresden A.24
General-Wever-Strasse.

I think it is February 13, 1945.

My darling, darling wife,

I doubt that this letter will ever reach you; these are probably the last words and thoughts I shall ever write to you.

Apparently I was brought to Dresden earlier yesterday. Tonight there have been two air-raids, one after another. Now everything around me and above me is on fire. The hospital I'm in has been evacuated, and is empty. Outside I can hear a fire-storm raging, like the one in Hamburg. The whole building has been abandoned long ago. Everybody ran off when it caught fire. I am curious to know how many of them will survive, and where they've gone to. Everything around my bed is on fire; smoke and sparks are making breathing almost impossible.

It is peaceful here in the cellar. There is one candle giving out a little light. It is going to get very hot in here too. At the moment, I am just lying here in the cellar which is still cool, smoking my last rescued cigarette, and thinking of all the things one ought to think of in ones last minutes alive. There's nothing I can do but wait, and write these words…

Perhaps you will then sense somehow, even if this letter does not reach you and you find yourself alone, that my last conscious thoughts were with you and my mother.

Yours, V.

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Part One

DRESDEN: THE PRECEDENTS

They Have Sown the Wind

AIR HISTORIANS trace the earliest roots of the area offensive against Germany to the events of May 10, 1940.

Prior to this date, aerial attacks had been delivered by the Royal Air Force only against capital ships, bridges, or gun installations, more from respect of the superiority of the German Luftwaffe than from considerations of international law. Warships in the Kiel Canal had been attacked as early as September 4, 1939 but it was not until the night of March 19–20, 1940 that the R.A.F. dropped its first bombs on German soil, bombing a seaplane base on the island of Sylt; three days earlier the Luftwaffe had raided the Orkney Islands, killing a British civilian. 'Up to that time,' the Air Ministry noted in June 1943, 'the R.A.F. had avoided the bombing of targets which might have involved the civilian population.'[1]

The Royal Air Force had continued to restrict its operations over Germany to 'nickelling' – dropping leaflets on the Reich, a pursuit which continued up to the evening of May 10, 1940, the day when Hitler's invasion of France and the Low Countries began; it was also the day on which Neville Chamberlain, a pronounced

opponent of the use of the bomber as a weapon of terrorisation, was replaced by a less inhibited British prime minister.

Just before four P.M. on that warm but cloudy afternoon three twin-engined aircraft flying at an altitude of around five thousand feet appeared out of the cumulonimbus clouds over Freiburg-im-Breisgau in south-western Germany; each dropped a stick of bombs and departed swiftly. Most of the hundred-pound bombs exploded very wide of their original aiming point, the fighter airfield: only ten fell on the airfield, while thirty-one, including four which did not explode, fell within the city limits to the west; six fell near the Gallwitz barracks, and eleven fell on the Central Station. Two of the bombs fell on a children's playground, in Kolmar-Strasse. The Polizei-Präsident – the official responsible for civil defence in every German city – reported fifty-seven fatal casualties, comprising twenty-two children, thirteen women, eleven men, and eleven soldiers.[2]

The German propaganda ministry was swift to exploit this incident. The official D.N.B. news agency stated that night: 'Three enemy aircraft today bombed the open town of Freiburg-im-Breisgau, which is completely outside the German Zone of Operations and has no military objectives'; the agency added that the German Air Force would answer this 'illegal operation' in a like manner. 'From now on any further systematic enemy bombing of the German population will be returned by a five-fold number of German planes attacking a British or French town.'[3]

The Freiburg raid was surrounded in immediate mystery. The French, accused of having executed the attack, insisted that they were innocent, although a Potez 63 aircraft had been seen in the area; satisfied by this plea, the British Foreign Office published a clear warning that they regarded the German allegation as 'mendacious'; they suspected an attempt at prefabricating a justification for a Luftwaffe (German air force) assault on allied towns: while recalling that on September 1, 1939 they had given an assurance to the President of the still, nominally, neutral United States that the Royal Air Force had been given orders prohibiting the bombing of civilian populations – an assurance which it must be stated the British prime minister up to May 10, 1940 had scrupulously observed – the British government now publicly proclaimed that it reserved the right to take whatever action it considered appropri-

ate in the event of German air raids on civilian populations.[4]

Thus the Cabinet on its very first day of office under Mr Winston Churchill, the new prime minister, was able to dispose of Mr Chamberlain's public guarantee to respect German civilian lives, a guarantee which could well have proved embarrassing in the offensive against Germany that was to ensue.

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Four days after the Freiburg affair, the Luftwaffe launched one of its most ill-famed air raids of the Second World War, during the critical land battle for Rotterdam. While, like the mysterious attack on Freiburg, this raid does not fall within the concept of an area attack, any account of the prelude to the bombing war would be grossly incomplete without a sober description of the Nazis' Rotterdam raid, given the role it played in forming British public opinion towards the later overwhelming attacks of the Royal Air Force on German towns.[5] Mr Churchill himself afterwards referred in his memoirs to 'the long prepared treachery and brutality which culminated in the massacre of Rotterdam, where many thousands of Dutchmen were slaughtered,' and in subsequent official documents he claimed that as many as thirty thousand had died in the attack.

His statistics were less than exact, as historical research has proven. Although many of the most important Luftwaffe records were destroyed in an accidental fire at Potsdam on the night of February 27–28, 1942, the origins and nature of the Rotterdam attack of May 14, 1940 can be clearly reconstructed.

By May 13, 1940, three days into Hitler's invasion of Holland, his 22nd Airborne Division with four hundred troops were encountering severe difficulties at the position where they had landed on the tenth, to the north-west of Rotterdam; reinforcements from the 9th Panzer Division and the 16th Infantry Regiment had penetrated the city as far as the Maas bridge – captured on the very first day of the offensive by Nazi paratroops in the face of Dutch attempts to demolish it; the bridge was a Dutch defence keystone. At 4.00 p.m. on 13th May Lieutenant-Colonel von Cholchitz – later commandant of Paris, but in 1940 still commanding the 16th In-

fantry Regiment's troops, sent a deputation to the Dutch city's commandant, to demand its immediate surrender. The latter, Colonel Scharroo, refused to negotiate, and every indication was that during the night the Dutch would shell the German positions. The 22nd Airborne Division, beleaguered on the other side of Rotterdam, appealed for an air strike against the Dutch artillery before this bombardment could occur.

In spite of the urgent need for such a tactical air strike, the eventual orders actually issued for the air operations against Rotterdam expressed a decidedly different intent: 'Resistance in Rotterdam is to be crushed with all means,' General von Küchler, 18th Army Commander, ordered XXXIX Korps at 6:45 P.M. on May 13. 'If necessary the destruction of the city is to be threatened and carried out.' Luftflotte 2, Kesselring's bomber group, allocated Kampfgeschwader (bomber wing) 54 for the Rotterdam operation, and on the evening of the thirteenth a KG.54 liaison officer, Colonel Lackner, was dispatched to the Seventh Air Division operations room to collect the target map, 'on which the Dutch defensive zones which had to be destroyed by saturation bombing were drawn in.'[6]

On the same evening the 9th Panzer Division's interpreter was ordered to frame an ultimatum to the Dutch Commandant in the following terms: 'The resistance offered to the advancing German Army compels me to inform you that in the event that resistance is not ceased at once, the total destruction of the city will result. I request you, as a man of responsibility, to use your influence to avoid this. As a sign of good faith, I request you to see an intermediary. If within two hours I receive no answer, then I will be forced to employ the severest means of destruction. (Signed) SCHMIDT. O.C., German troops.' This was the bluntest possible threat, but it was apparent that General Schmidt, the XXXIX Korps Commander, hoped that the Dutch would see reason and capitulate.

The Dutch commander however saw no reason for such precipitate action. His communications with his commander-in-chief were intact and northern Rotterdam was still securely in Dutch hands.

Not until 1:40 P.M. on the next day, May 14, did the German intermediary return, the Dutch having detained him in an attempt to win time; they had been hoping for a British airborne landing with reinforcements but this did not materialise. Since Scharroo had however mentioned that he would send a plenipotentiary at two P.M. to negotiate, General Schmidt had no alternative but to postpone the air strike planned for three P.M.: 'Attack postponed on account of negotiations,' he radioed to the headquarters of Luftflotte 2. 'Return the aircraft to Take-off Alert.'

On the airfields at Quakenbrück, Delmenhorst, and Hoya in northern Germany some one hundred aircraft of KG. 54 had already been briefed to attack the areas still offering resistance in Rotterdam, flying in two bomber streams. Their flying-time to Rotterdam would be about ninety-five to one hundred minutes; with the German intermediary's return long overdue the coded signal to attack had been given as early as noon; in the meantime the 22nd Airborne Division continued to radio desperately for air support.

KG. 54 was instructed to attack 'according to plan' unless it saw red signal flares proclaiming the last minute surrender of Rotterdam. At 1:25 P.M. the two formations took off, with the first Gruppe (squadron) on the left and the second on the right. At the same time, the Dutch, still playing for time, indicated that as General Schmidt's message was not signed and did not indicate his rank they were not prepared to accept it; the Dutch messenger, a Captain Backer, was however instructed to ascertain the German surrender conditions. Forty precious minutes passed while the paratroop general Student formulated the conditions with Generals Schmidt and Hibicki, commander of the 9th Panzer Division. By then it was five minutes to the zero hour set for the postponed air strike against Rotterdam, and it was found to be no longer possible to relay the recall-signal to the Heinkel bombers as they had reeled in their trailing aerials on crossing the Dutch frontier. General Wilhelm Speidel dispatched a swift fighter aircraft, piloted by Lieutenant Colonel Rieckhoff, to overtake and head off the bomber formations, but without success.

As soon as he heard the approaching bombers, Schmidt ordered the firing of red signal cartridges as pre-arranged to signal that the attack was 'scrubbed'.

'I had been concentrating on looking out for any red lamps,' the commander of the first Gruppe of KG. 54, attacking Rotterdam from the south, later related. 'My bomb-aimer had clearly identified the aiming point and was dictating his readings over the radio. When he reported that he would have to release the bombs if we were not to overshoot the target – very important with German troops so close – I gave the order for their release, dead on three o'clock. Just then I saw two pitiful little red signal-cartridges arching up, instead of the expected red signal-lamp. We could not hold back the bombs because the bomb release was fully automatic, nor could the two other aircraft in my leading flight: They dropped their bombs as soon as they saw mine go down. But my radio operator's signal got through just in time for the other aircraft.' Of the one hundred He. 111 bombers, only forty heard the signal to abort in time; the rest delivered a very concentrated attack on the designated aiming points in Rotterdam.

Right at the start of the raid, the main water supply was smashed, and as earlier tactical air raids had largely drained the canal system, the weak local fire-service proved unable to cope with the spreading fires, especially as one of the buildings most severely damaged was a margarine factory, from which streams of burning oil emerged. It is worth commenting that the Germans, in keeping with the nature of an air raid on gun positions, had used no incendiaries. Ninety-four tons of bombs had been dropped – 1,150 hundred-pound and one hundred and fifty-eight 500-pound bombs – a figure which compares unfavourably with the close to nine thousand tons of high explosive and incendiaries dropped on the inland Ruhr port of Duisburg during the triple blow of October 14, 1944, for example.

At 3:30 P.M. Rotterdam capitulated, the commandant protesting bitterly that the surrender negotiations were in hand before the air strike had begun. Four hours later General Winkelmann, the Dutch commander-in-chief, broadcast that 'Rotterdam, bombed this afternoon, suffered the fate of total war. Utrecht and other towns would soon have shared its fate. We have ceased to struggle.'

As a tactical, close-support raid the assault had been overwhelming; as a strategic, 'terror-raid' the attack could not have obtained its objective more dramatically. The German military leaders protested until the end that the raid had been purely tacti-

cal in its aims. At the Nuremberg tribunal in 1946 there was this brief exchange on the subject:

> SIR DAVID MAXWELL-FYFE: 'Was not your purpose to secure a strategic advantage by terrorising the people of Rotterdam?'
>
> KESSELRING: 'That I can deny with the clearest conscience; we only had one task: to provide artillery support for Student's troops.'[7]

The German High Command's communiqué of May 15, 1940 announced with unbecoming effrontery that 'under the pressure of German dive-bombing attacks and the imminent tank assault on the city, Rotterdam has capitulated and thereby saved itself from destruction.'

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By war-time standards the casualties were not large: some 980 people had been killed including a large number of civilians in fires which had ravaged over 1·1 square miles of the most important part of the city; the conflagration was still burning in some areas when hastily organised German fire-fighting regiments under General Hans Rumpf arrived some days later. The fires had destroyed twenty thousand homes making 78,000 people homeless.

With the fall of the rest of Holland it remained to Britain and her allies only to reap what profit they could from the ruins of Rotterdam. On July 16 the first shots were fired in what was to become a virulent propaganda war in the air: the Royal Netherlands Legation in Washington issued a colourful statement, on which Mr Churchill appears to have relied in his memoirs: 'When Rotterdam was bombed,' the statement protested, 'the Dutch Army's capitulation had already been handed to the German High Command. The crime against Rotterdam was a deliberate, fiendish assault on unarmed, undefended civilians. In the seven-and-a-half minutes that the planes were over the city, 30,000 people died – 4,000 unoffending men, women and children per minute.' The statement also described how 'the final ghoulish touch to this

man-made inferno of death was that the Germans made aerial motion pictures of their handiwork.'[8]

Whether the raid against Rotterdam was a tactical operation or – as was claimed at the post war Nuremberg tribunal – solely designed to terrorise the civilian population, the blow was not forbidden under the terms of Article 25 of the 1907 Hague Convention, to which both Britain and Germany were signatories: Rotterdam was not an undefended town. More will be said about this aspect of the area offensive – the aspect of international law – when we come to analyse the Dresden raids of 1945.

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The commander-in-chief of R.A.F. Fighter Command was convinced that the Luftwaffe could not be defeated over the Continent; the enemy bomber and fighter formations should, he felt, somehow be enticed or provoked into daylight battle over the British Isles, within reach of Britain's superior short-range fighter defences. With this requirement in mind, the R.A.F. launched its first attacks on targets east of the Rhine on the evening that the Rotterdam raid was announced to the world; less than twenty-five of the ninety-six bombers despatched even claimed to have found their targets. Hermann Göring did not divert one fighter from operations supporting the Battle for France. Only after France had fallen, and after the R.A.F. had repeatedly attacked the German mainland, did the Führer direct the Luftwaffe's attention to industrial targets in and around London.

As the nights drew longer, on the night of August 19–20 a Blenheim bomber was actually shot down over Berlin. Damage was minimal. Six nights later Mr Churchill sent a large force of bombers to attack Berlin, ostensibly as a reprisal for a Luftwaffe raid on London on the night before.[9] (After the war was it revealed in the Official History of the Defence of the United Kingdom that these first German bombs had been 'unintentionally' dropped on the east end of London, causing no casualties, during a raid on a Thames-side refinery by the Luftwaffe.) In Dresden the sirens sounded for the first time in a year of war as the eighty-one British bombers ap-

proached central Germany. In Berlin, after the shock of the first bombs since 1918 had ebbed away, the immediate reaction was deprecatory; the Berlin correspondent of the responsible New York *Herald Tribune* blithely reported: 'No trace of British Raids in Berlin.'[10] *The Times* expressed anger that the American correspondents in Berlin had sent 'only brief despatches, minimising the effects of the latest raid' back to their New York offices: 'All the really exciting news about the attack was in the London despatches.'[11]

On August 28–29 British bombs killed ten Berliners. In spite of the failure of the R.A.F. even in the nights following to inflict more serious injury on the Reich capital, this new air assault provided the Führer, still fresh from the triumph of his offensive in the west, with the provocation he had been seeking. Speaking on September 4 at the Palace of Sports in Berlin he declared, 'If they threaten to attack our cities, then we shall rub out theirs.' Undeterred, the R.A.F. launched more raids on Berlin. On the fifth they killed fifteen people. After lunching with Hitler on the sixth Goebbels recorded in his diary: 'The Führer is fed up. He clears London for bombing. It is to begin tonight.'

On the afternoon of September 7, three days after Palace of Sports threat, and two weeks after the first R.A.F. assault on Berlin, the Luftwaffe appeared in strength over London for the first time in a daylight raid: 247 bombers escorted by several fighters pounded oil stores and dock installations along the lower reaches of the Thames with a total of 335 tons of high explosive and 440 incendiaries.

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The dubious evaluations of the R.A.F.'s night attacks on Germany by neutral correspondents actually living within the target cities should have been recognised by the commander-in-chief of Bomber Command of the time, Sir Charles Portal; these foreign news reports were available to him, even if not to the general public in the United Kingdom, and they were couched unanimously in the clear and unmistakable terminology of failure.

The Air Ministry itself was, however, apparently undismayed by these warning

signs, even when the enemy Propaganda Ministry developed the most effective ploy of conducting American correspondents round all the areas 'destroyed' in the British communiqués. Thus when the Air Ministry's news service intemperately claimed that Hamburg was 'practically in ruins' in August 1940, Goebbels sent two planeloads of neutral journalists to see for themselves that Hamburg was undamaged.[12] The *New York Herald Tribune* ran a telling headline, 'Nazis call Hamburg "Pulverisation" False: Exhibit City to Foreign Writers to Prove it.'[13] In the same month Goebbels arranged similar tours of inspection for Kiel and Wilhelmshaven, both 'smashed', and thirty six major oil-dumps and Krupps, 'bombed disastrously', (still August 1940). The month ended with the R.A.F. attacks on Berlin which attracted the contemptuous coverage in the New York newspapers to which reference has already been made.

Convincing though these reports from inside Germany were, they found currency neither with Sir Charles Portal as commander-in-chief of Bomber Command, nor with Sir Richard Peirse, then Deputy Chief of Air Staff and soon to become commander-in-chief on Portal's appointment as Chief of Air Staff. Peirse on the contrary had the utmost confidence in the efficiency of R.A.F. Bomber Command, as he wrote to the Prime Minister on September 5: 'I think there is little doubt that the reason for the effectiveness of our night bombing is that it is planned and relentless until the particular target is knocked out or dislocated,' he suggested, 'whereas German night bombing is sporadic and mainly harassing.'

One of the few senior officers at High Wycombe who did not share this boundless optimism was Sir Robert Saundby; he was profoundly sceptical of the claims made by bomber crews. At the headquarters of Bomber Command, he has described, there was a map covered with red and black squares, the former being known oil plants in existence, the latter, black squares being those that the R.A.F. had 'flattened'. On an inquiry from Saundby, the officer in charge of the map explained that as statistics had demonstrated that one hundred tons of bombs would destroy half an oil plant, each of these plants marked in black, having received two hundred tons, must have been destroyed; the officer knew that they had been hit, he added, 'because those were the orders of the aircrews'. To this, Sir Robert Saundby replied caustically, 'You have not dropped two hundred tons of bombs on these oil plants; you have exported two

hundred tons of bombs, and you must hope that some of them went down in Germany'.[14]

In these, the early days of Bomber Command, this remark must have deeply shocked the officer concerned; but it illustrates clearly the realistic attitude which Bomber Command's senior officers would have to adopt if the Command was to survive.

A typical 'black square' would have represented the Ilse Bergbau Synthetic Oil Refinery at Ruhland, close to Dresden, attacked by Bomber Command on the night of November 10–11, 1940: 'The great plant, identified by its six tall chimneys, was showered with incendiary bombs by the first arrivals, and the red glow of the many fires they started aided following raiders to pin-point their objectives. Direct hits with high-explosive bombs were scored among the refinery buildings, and across the base of the chimney stacks, causing violent explosions, the force of which could be felt in the aircraft thousands of feet above. At the end of an hour's attack, great fires giving off dense clouds of black smoke were blazing in the re⁵nery area, and could be seen by the last of the raiders for twenty minutes after they turned on their 500 miles' flight back to England.' All this was in spite of cloud 'rising unbroken to more than 18,000 feet.' Dresden itself was 'also bombed for the first time,' with large fires in the city's main railway junctions, and heavy damage to the gas, water and power installations, in an attack lasting from 9:15 until nearly 11.00 P.M.' Although Dresden's sirens did sound at 2:25 A.M., in fact no bombs fell.'[15]

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If both Portal and Peirse cherished unrealistic illusions about the ability of their rank-and-file airmen to navigate accurately by the stars to distant, pin-point targets, German scientists harboured none. As early as March 1940 documents captured from crashed German bombers had shown that the aircraft had been relying on a device code named *Knickebein*, radio-beams for accurate navigation by night; when the R.A.F.'s No80 Wing, an ad hoc Radio Counter Measures organisation established under Wing Commander E B Addison, developed means of deflecting these beams, the Luftwaffe aircraft switched to a new system on the night of November 14–15,

1940, involving a new beams system code named *X-Gerät*, by means of which fire-raising aircraft could release showers of incendiaries accurately over the aiming point, setting the city on fire – in this case Coventry – followed by the main force of bombers which then had little difficulty in identifying the target. The final development by the Germans in the early radio-beam war was the introduction in February 1941 of *Y-Gerät*: A radio signal beamed out from a German ground station was picked up by the bomber's equipment and transmitted back to the ground station; the time-lapse provided an accurate measure of the aircraft's exact location over England. Introduced as Oboe in R.A.F. Bomber Command squadrons two years later, this technique was to provide one of the most powerful target finding weapons in its arsenal from the Battle of the Ruhr onwards.

The deployment and technical equipment of the German pathfinder squadron known as Kampfgruppe 100 was in every way an object lesson for Bomber Command. By the light of the fires started by the Heinkels of K.Gr. 100 , navigating by X-Gerät beams, the remaining bomber squadrons were more easily able to find their targets and aiming points: thus in the rather unrealistic target-assignments for the Coventry raid of November 1940 I./LG. 1 was allocated the Standard Motor Company together with the Coventry Radiator and Press Company; II./KG. 27 was to attack the Alvis aero-engine works; I./KG. 51 the British Piston Ring Company; II./KG. 55 the Daimler Works; and K.Gr. 606 the city's gas holders. Out of 550 German aircraft despatched, 449 arrived over Coventry and dropped 503 tons of high explosive and 881 incendiary canisters.

The raid cost three hundred and eighty lives among the city's population, far fewer than in Rotterdam. But there was a second object lesson which R.A.F. Bomber Command learned from Coventry – that by far the greatest long-term damage to industrial production was occasioned by the destruction of water and gas mains and electric power supplies. True, the raids had severely damaged twenty-one important factories, of which twelve were directly connected with the aircraft industry; but it was the paralysis of public services caused by incidental bomb damage elsewhere which resulted in the total stoppage of nine other vital factories which would otherwise have been operating very soon after the raid.

This unexpected phenomenon was to become the fundament of R.A.F. Bomber Command's future area offensive. The equivalent of thirty-nine days' industrial production had been lost in Coventry, not so much by direct damage to factories as by the collateral damage to the city centre. Moreover, experts advised the British government that if the Luftwaffe had repeated its attacks on two or three consecutive nights, the city would have been more easily identified with the fires from the previous attack still burning, and it might have been put out of action permanently. Like the British the Germans were however still finding their wings in the air war; thus they deliberately extenuated the Coventry attack from 10:15 P.M. until nearly six A.M. next morning; while conversely the R.A.F. reduced the average length of its most successful raids on German towns to only ten to twenty minutes by the end of the war, resulting in an overwhelming of the target areas with fire bombs which the German fire-services were unable to master.

There is in fact little doubt that, had the 449 German bombers attacking Coventry been charged with predominantly incendiary loads, and had they been routed over the target area in close concentration like the great No 5 Group attacks on Brunswick, Dresden, and other cities, and had moreover the attack been aimed, as was the case with Dresden, solely at the mediæval centre of Coventry rather than at arms factories on the periphery, then a fire-storm might have been generated in the British Midlands city with at least a comparable loss of life; this was, however, one opportunity which the Germans missed. Only once, recalled Sir Arthur Harris later, did a Luftwaffe raid ever approach fire-storm conditions: during an unusually heavy fire-raid on London, when the Thames was running a neap tide, the hoses of the London fire brigades had been unable to reach down to the river surface. 'So often the factor which converted an otherwise routine attack into a major catastrophe was just a freak of nature,' he observed, alluding perhaps to the heatwave which had sealed the fate of Hamburg in the summer of 1943.

For the time being the air ministry, faced with catastrophes like Coventry, when the ground defences could claim only one bomber and the fighters none at all, could only hope for better times, and publish comforting reports for the British population like that which appeared as the main story in all leading London newspapers five days

later: KRUPPS SMASHED BY R.A.F. BOMBS, the headlines ran; and the year of 1940 was still not at an end.

[1] Air Ministry, 'Note on the Bombing of Open Towns', Jun 2, 1943 (Imperial War Museum, London).

[2] Dr Anton Hoch – an incorruptible German historian who is still sorely missed – wrote the definitive study of the Freiburg raid in *Vierteljahrshefte für Zeitgeschichte*, Munich, 2/1956.

[3] *The Times*, May 11, 1940.

[4] Ibid., and *Manchester Guardian*, May 11, 1940.

[5] My account is largely based on the fine study based on German archives by the Bonn university historian Dr Hans-Adolf Jacobsen, 'Der deutsche Luftangriff auf Rotterdam,' published in *Wehrwissenschaftliche Rundschau*, Frankfurt/Main, May 1958. – See too *Report of International Military Tribunal* (Nuremberg), vol.xi, p.214 (Mar 13, 1946) and pp.337 et seq. (Mar 15, 1946).

[6] Statement of General Lackner to Jacobsen. He used the word *Bombenteppiche*, 'carpet bombing.' The Air Ministry Historical Branch's account of the Rotterdam raid (*Grand Strategy*, United Kingdom Military Series, Vol. II, p.569ff.) is erroneous and tendentious in some respects.

[7] *Report of International Military Tribunal* , vol.ix, p.214, Mar 13, 1946. – The western allies were hardly in the position to accuse ex-Reich Marshal Göring in this respect. As recently as April 1945, General Allen, commanding the 104th U.S. Infantry Division, had given the people of Halle the choice between 'SURRENDER OR LIQUIDATION: Complete destruction faces your city. Either Halle is surrendered unconditionally, or totally destroyed.' U.S. Aerial Leaflet CT.61; for other examples, cf. also U.S. Aerial Leaflet WG.17 for details of a similar ULTIMATUM TO PEOPLE OF AACHEN on Oct 9, 1944.

[8] *New York Times*, Jul 17, 1940.

[9] Churchill's telephone directive to RAF Bomber Command soon after nine A.M. on Aug 25 is in Air Ministry papers, PRO file AIR.14/775. The *Völkischer Beobachter* headline on Aug 27 read, 'London dresses up attack on Berlin as a "reprisal".'

[10] *New York Herald Tribune*, Aug 29, 1940.

[11] *The Times*, Sep 3, 1940. – Unfortunately, there appears to have been no American correspondent in Stuttgart, some 320 miles from Berlin; although there was no plan to raid the city that night,

between 12:16 A.M. and 1:24 A.M. some twenty aircraft did bomb Stuttgart, killing five and injuring four civilians in the Untertürkheim district. – Information from the Stuttgart Statistical Office.

[12] Dr Joseph Goebbels diary, Aug 2–4. Goebbels ministerial conference, Aug 3; Louis Lochner, letter, Aug 9, 1940 (Franklin D Roosevelt Library, Hyde Park, N.Y: John Toland papers, box 52).

[13] *NewYork Herald Tribune*, Aug 4, 1940.

[14] Sir Robert Saundby to the author.

[15] Air Ministry Bulletin 2235. – A previous 'first-ever' raid executed on Dresden on Sep 22, 1940 was reported in Air Ministry Bulletin 1796, when 'railway sidings were attacked and two hits were obtained on a goods train.' Once again the sirens did sound, but no bombs were recorded. Cf. also Hansard, Parliamentary Debates, vol. 385, col. 327, for a claim to have twice attacked Dresden.

Bomber Command Gets its Teeth

For Bomber Command and Mr Churchill the truth about the failure of their offensive hitherto did not dawn slowly, but was revealed to them suddenly and unambiguously on the date that Mr David Bensusan-Butt, the private secretary to Churchill's adviser Professor Frederick Lindemann, reported back to Bomber Command: August 18, 1941.[1] Soon after Christmas 1940, Mr Butt had by chance come across R.A.F. Medmenham's collection of bombing photographs and as a direct consequence of his report to the Professor he received the commission of analysing them statistically.

The Butt Report presented in melancholy detail the evidence that what the neutral press had been proclaiming for a year about the impotence of the British bomber force was true. Of all aircraft recorded as having attacked their targets, only one-third had in fact bombed within five miles; on well-defended inland targets like the Ruhr industrial complex, the success rate sagged to below one-tenth within five miles. It was clearly unrealistic to require Bomber Command to attempt precision night attacks until electronic equipment like that used by the Luftwaffe bomber squadrons was available at least to a part of the Command's aircraft.

Mr Churchill was however anxious in these months to support the now beleaguered Soviet Armies in the only way open to him, and on July 9, 1941 Air Vice-Marshal Sir Norman Bottomley, the deputy Chief of the Air Staff, had issued the first of his many directives to the commander-in-chief of Bomber Command, at that time still Air Marshal Sir Richard Peirse. This read as follows:

> I am directed to inform you that a comprehensive review of the enemy's present political, economic and military situation discloses that the weakest

> points in his armour lie in the morale of the civil population and in his inland transportation system.

The main effort of the bomber force, until further instructions, was to be directed towards dislocating the German transportation system and to destroying the morale of the civil population as a whole. Peirse was left in no doubt as to how he was to achieve this. As primary targets for attack he was allocated Cologne, Duisburg, Düsseldorf and Duisburg-Ruhrort, 'all suitable for attack on moonless nights, as they lie in the congested industrial towns, where the psychological effect will be the greatest.'

> We must first destroy the foundations upon which the [German] war machine rests – the economy which feeds it, the morale which sustains it, the supplies which nourish it, and the hopes of victory which inspire it.

The above extract from the Chiefs of Staff memo, July 31, 1941, heralded the approach of what became known as the Area Bombing Offensive. The January 1943 Casablanca Directive was in fact barely more than an extension in bolder language of this policy.

The Command was ill-prepared for an area offensive even by the end of 1941; although the air ministry had planned the construction of the four-engined heavy bomber as early as 1936, it had not put in hand the manufacture of the instruments which were to guide it or the bombs which it was to drop.

When the R.A.F. entered the war its bombs were still based on 1918 patterns and explosives – and on at least one occasion, the British raids on Stuttgart in July 1944, the aircraft of some squadrons were dropping 1918 weapons. Experience gathered during the Spanish Civil War had suggested that the blast waves from bombs could kill at a great distance from the detonation itself; for this reason, during the early months of the war Bomber Command had no bombs more massive than 500-pounders available, and there was little incentive to develop larger weapons. The Germans had not made this mistake, and by 1943 they were regularly using explosives en-

hanced with simple aluminium additives which virtually doubled their blasting power – a fact not unknown to the British defence experts, who however failed to pass it on to those designing ammunition for Bomber Command.

The discrepancy was noted by a leading Admiralty expert on Operational Research, the physicist Professor Patrick Blackett: 'Static detonation trials,' he would write, 'showed that the British General Purpose bombs then in use were about half as effective as the German light-case [i.e. blast] bombs of the same weight. In the ten months from August 1940 to June 1941 the total weight of bombs dropped on the United Kingdom was about 50,000 tons; the number of persons killed was 40,000, giving 0·8 killed per ton of bombs.' Thus, reasoned Blackett, given the proven lower efficiency of the R.A.F. as well as its inferior weapons, it might hope to kill 0·2 Germans per ton of British bombs dropped. As he had already shown that 'the loss of industrial production … and civilian casualties … were about proportional,' he implied by his calculations that a continuation of the R.A.F.'s area offensive was futile, a view which was already widely popular among Admiralty circles.[2]

Macabre experiments conducted in late 1941 by Professor Solly Zuckerman and which first came to the public notice as the result of a Question in the House of Commons, tended to bear this out.[3] Zuckerman demonstrated that German bombs, weight for weight, were about twice as efficient as British bombs. But that was not all: by detonating standard British 500-pound General Purpose bombs among live goats staked out at various angles in a deep pit, Zuckerman was able to deduce that 'the lethal pressure for man' was between four- and five-hundred pounds per square inch; an examination of air-raid experiences in British cities suggested that this estimate was of the right order. Previously, the lethal pressure had been believed to be as low as five pounds per square inch.[4] Zuckerman empirically estimated the pressure necessary to cause minimal pulmonary damage in man at seventy pounds per square inch; referring to a survey conducted by Professor J D Bernal of casualties in German air raids on British towns, Zuckerman concluded that only a small percentage of people were close enough to the bursting bombs to receive direct injuries from the blast wave.

It is worth noting that although Zuckerman also investigated the splinter effects

of bombing (by firing high velocity steel balls into rabbit's legs), no scientists on either side of the conflict appears to have investigated the lethality of bombs from the aspect of smoke- and monoxide-poisoning, which were to result – in the raids analysed in this work – in about seventy percent of Germany's fatalities.

But if Professors Blackett and Zuckerman expected the Air Staff to heed their pessimistic calculations, and divert industrial resources to an attack on the enemy's submarines – both scientists were noted opponents of the area offensive – they were disappointed. Their calculations, and many others by similarly inclined scientists, were used only as an argument for more powerful weapons and better instrumentation of Bomber Command.

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It was essential that production of light-case blast bombs begin as soon as possible, in order to approach the efficiency of the German weapons. Towards the end of 1941 the first five-hundred pound medium capacity bombs, of forty percent explosive content, came into service. The primary weapon of the area offensive was however to be the high capacity bomb, of eighty percent explosive content – thin-walled 'blockbusters' the size and shape of domestic boilers, produced in four-thousand, eight-thousand, and finally twelve-thousand pound sizes.

While Professors Blackett and Zuckerman had decisively dismissed the possibility of inflicting serious damage on the German populace, Mr Churchill had consulted a different oracle: he had asked Professor Lindemann, who had had the persistent failure of R.A.F. Bomber Command before him since his secretary's melancholy discovery of Christmas 1940, to propound a bombing policy by which Britain could effectively assist her new ally in the East.

Lindemann's final report, dated March 30, 1942, suggested that there was little doubt that an area bombing offensive could break the spirit of the enemy provided that it was aimed at the working-class areas of the fifty-eight German towns with a population of more than one hundred thousand inhabitants. 'Each bomber will in its lifetime drop about forty tons of bombs,' reasoned Lindemann. 'If these are dropped

on built-up areas, they will make about 4,000 to 8,000 people homeless.' Between March 1942 and the middle of 1943 it should be possible to make about one-third of the whole German population homeless, provided that industrial resources were concentrated on this campaign.

The Lindemann minute was passed to Professor Blackett and another eminent scientist, Professor Henry Tizard, for comment; both of them were former naval officers, and both dismissed the calculations as being seriously in error. They suggested that Lindemann was overestimating the success of an area bombing offensive by six and five times respectively. Both were overruled.[5]

The bombing policy which Lindemann advocated did not require many changes in Bomber Command's tactics. As recently as February 14, 1942 Bomber Command had been reminded in the most unmistakable language that its primary purpose was to attack Germany's residential areas. 'Ref the new bombing directive,' Sir Charles Portal had scribbled in pencil to his deputy the following day, 'I suppose it is quite clear that the aiming-points are to be the built-up areas, *not* , for instance, the dockyards or aircraft factories where these are mentioned?' This was to be made quite clear. Portal emphasised, if it was not already understood. This, then, was the policy of destroying residential areas which awaited Sir Arthur Harris when he arrived at Bomber Command's underground headquarters at High Wycombe to take up his new appointment as commander-in-chief on February 22, 1942. The Casablanca Directive of a year later merely reiterated the area bombing policy in bolder and more concrete terms. There can be no more eloquent proof of Harris' innocence of having personally initiated the policy of the area bombing of civilian residential areas.

As Elizabeth Corwin pointed out in an elegant little study for the University of California in Los Angelese in 1987[6], this policy was effectively concealed from the public by the British government until March 1961 when it was exposed by C P Snow in a slim volume entitled *Science and Government*.[7] It was then admitted the following September in the Official History of the Strategic Air Offensive against Germany.[8]

With the new tactics impressively demonstrated in the fire-raising raid on Lübeck

on the night of March 28–29, 1942 and in four incendiary attacks on the Baltic port of Rostock a month later, it seemed that Professor Lindemann's theory was correct; in a fit of candour the British Broadcasting Corporation reported that at Rostock the R.A.F. had 'destroyed a large number of workmen's houses', a report which provoked an indignant Question from an Independent Labour M.P. in the House of Commons, about whether it 'was necessary to destroy workers' dwellings in order to impede or disorganise the German war effort?' The Government supplied him with a non-committal reply.

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By the beginning of 1943, therefore, Bomber Command was in the position where its area offensive against Hitler's industrial cities, could be joined. The Casablanca Directive of January 21, 1943 had defined the part which R.A.F. Bomber Command was to play in securing victory over the Axis powers: Sir Arthur Harris was to aim at the 'progressive destruction and dislocation of the German military, industrial and economic system, and the undermining of the morale of the German people to a point where their capacity for armed resistance is fatally weakened.'[9]

Now, too, for the first time in the war Bomber Command had the weapons and instruments with which to put this Directive into effect. The Telecommunications Research Establishment had developed a revolutionary new navigation device, an airborne radar operating on the 9·2-centimetre wavelength known by its codename H_2S; this threw an almost television-like picture of the topography below onto a radar display inside an aircraft.[10]

So far indeed had the use of this device progressed that by February 1943 the Germans were already in possession of their first captured H_2S and were learning its wonders, assisted by a co-operative ex-Pathfinder Force prisoner, dangerously fast.[11] (By May 19, the Berlin electronics firm Telefunken had plans for the mass-production of clones of the heart of the H_2S, the vital LMS. 10 magnetron, at the rate of ten per week.)

The British bombers would soon have other target finding devices too. Trials of

Oboe had come to a successful conclusion; this was a new computer-linked radio-repeater device for Mosquitoes based on Germany's 1941 *Y-Gerät* but operating on the shorter wavelengths in which British technology was superior. It was not until January 7, 1944 that a crashed Mosquito near Cleve provided the vital missing clues which would enable German scientists to interfere with the beams.

A successful raid by British Commandos on Bruneval in northern France had provided Britain with vital data about the Germans' 53-centimetre *Würzburg* early-warning radar and in the year since then British scientists had devised a counter-measure, known as *Window* – strips of aluminium foil – of the correct dimensions and stiffness to blind or clog the enemy's radar defences.

More important perhaps than these mechanical innovations was the favourable climate of public opinion towards the bombing offensive which now existed in England. In all of his public pronouncements the Secretary of State for Air, Sir Archibald Sinclair, had been careful to stress that Bomber Command was bombing only military objectives; he and other politicians had decried as absurd any suggestion that their heroic bomber crews were executing deliberate attacks on residential or working-class housing areas.

This deliberate deception was perhaps the most egregious fraud perpetrated on the British public throughout the war; a hundred thousand airmen knew and recognised that their aircraft were being dispatched night after night with the deliberate intention of setting fire to Germany's cities, knew that since December 16, 1940 the aiming points had invariably been in the heart of the civilian housing areas.

Inevitably, rumours of the truth did leak out. Early in 1943 a Bombing Restriction Committee made its appearance in London with an address in Parliament Hill, but attempts by Labour Members of Parliament to have its leaflets banned and its members interned came to nothing.[12] The real attack on bombing policy, from the highest governmental and religious quarters in the United Kingdom, was to be delayed until the late autumn of 1943; by that time three of the most devastating and bloody air raids on Germany had already been executed.

The first target which was to experience the full force of Bomber Command, its aircrews fresh and the bomb-aimers undeterred by ground defences, was the twin

city of Wuppertal, at the eastern end of the Ruhr, on which disaster fell on the night of May 29–30, 1943. It was the first time that one air raid had killed several thousand people – burning most of them alive.

The target was an extended, oblong town formed by the union in 1929 of the adjacent towns of Elberfeld and Barmen in the narrow Wupper Valley. Wuppertal was important as a dormitory area for other Ruhr cities, as well as a centre for the manufacture of ball bearings in the G. & J. Jäger plant, which featured prominently as target GZ.2701 in Sir Arthur Harris' notorious 'Bombers' Bædeker'.[13] Five other important industrial plants were situated in the city, including a major I.G. Farbenindustrie chemical works, the Bemberg artificial silk factory, and the central gas-works supplying 40,000 people.[14] None of these individual factories was however the aiming point for the attack; Harris had, after all, been ordered to make the aiming point the 'built-up areas' of the cities, and this he proceeded to do with Wuppertal. The bomber crews were issued with a target map of Wuppertal-Elberfeld printed in red and grey, with the usual concentric rings centring on the city's No2 Electricity Power Plant; this target map, 1(g)(i)32, had been prepared from another target plan dated 1936. The bomb aimers for this 1943 attack were however instructed to ignore the printed concentric rings and the target at their centre, brightly marked in orange; they were to mark instead a heavy cross in pencil over the grey (residential) area of Wuppertal-Barmen at the eastern end of the city, which was the bomb-aimers' designated aiming point in the event that the Oboe-equipped Mosquito markers did not arrive.

Air Marshal Saundby explains that it was common for details like military targets, industrial plants, and concentric-ring systems to be marked on target maps for the enlightenment of others than bomb-aimers; previously to using these red and grey target maps, the crews had been issued with minutely-detailed Ordnance Survey maps of target cities, sprinkled liberally with overprinted red Maltese crosses, and a heading HOSPITALS ARE MARKED ✠ AND MUST BE AVOIDED: 'These enabled people to get up in Parliament,' explained Saundby to this author, 'and say that we marked these things on our target maps, and that the crews had been specially briefed to avoid hospitals.'

Wuppertal had not been attacked before, largely because it was well hidden in the

surrounding countryside and did not present a particularly successful radar target. With this attack it was planned to exploit the phenomenon of 'creep-back' which had plagued the bombing offensive during previous attacks on heavily-defended targets. In the face of vigorous ground defence, the more timorous bomb-aimers habitually dropped their bombs early to avoid a long straight and level run over the heart of the target city; in consequence, the eventual damage extended on these occasions for several miles back from the aiming point marked by the Pathfinder Force's flares. If the marker flares were dropped near the eastern end of the town and the bomber stream was routed in from the west, then the creep-back would devastate Elberfeld as well.

The force of 719 bombers was instructed to cross the town on a heading of 68°; the extent of creep-back would depend on the strength of the ground defences; Wuppertal was a typical Ruhr target with many gun batteries and large and elaborate decoys, but on this of all occasions the Wuppertal flak stayed silent for the first minutes of the attack. Unfortunately for the Germans, Sir Arthur Harris had taken the unusual step of including forty-fire fire-raising aircraft with the early Pathfinder aircraft. The result of these two factors was that by the time the German defences did open fire an enormous load of incendiaries, very concentrated in both time and space, had already gone down in a tight patch round the Oboe-dropped red target-indicator flares in Barmen.

The zero hour for the attack had been set at one A.M. on May 30. As early as midnight the German Observer Corps had begun accurately tracking the bomber formations as they entered the Continent over the Schelde Estuary. At 12.05 Air Danger 15 had been sounded, a private air raid warning to Party Leaders and industrial and hospital chiefs in the Ruhr to enable them to take advance precautions. At 12.14 the sirens sounded the *Fliegeralarm* in Wuppertal, fifteen times repeating the two-second note of the 'Acute Danger' warning; this alarm was used only in times of gravest danger.[15]

> 12:20 A.M. The enemy formations are still pouring in over the Schelde estuary [the Observer Corps reported]. The first waves have reached the

Maastricht area and are heading due East.

12:30 A.M. The formations are heading for Mönchengladbach.

12:35 A.M. The bombers are assembling in the Mönchengladbach area.

12:40 A.M. The first waves are flying over the Rhine between Düsseldorf and Cologne, heading due East. A real danger exists of attack.

At this moment, the first two Oboe-Mosquitoes of the Pathfinder Force were at an altitude of some twenty thousand feet, being guided along a circular track directly southwards into the heart of Wuppertal-Barmen, across which a second Oboe beam had been laid, to signal the moment of release for the markers. First the ground stations in England transmitted the Morse signal A, B, C and D, then at precisely 12:47 the signal ST indicated that the Mosquitoes had reached the pre-computed release point taking the centrifugal throw of the marker bombs and the strong north-easterly wind taken into account; the first red marker flares were released over Wuppertal at precisely the correct moment; however, although the red flares fell extremely accurately, they were timed two minutes late, and the first wave of Pathfinder force Backers-Up and the fire-raising aircraft appear to have been 'piled up' on top of the target area waiting for the Oboe markers.

One minute later the city's observer posts reported aircraft engine sounds from the south-west.

12:50 A.M. The observer post at Tölleturm reports the sound of aircraft engines right overhead.

12:50 A.M. Observer post Tölleturm reports cascades of 'Christmas trees' over Wuppertal. A strong north-easterly wind is driving them south. The area marked is the southern hills and city centre.

At 12:53, zero-hour minus seven for the main force, the observer post telephoned its last report, to the effect that 'very heavy loads of high explosive and fire bombs' were already detonating in the immediate vicinity. In spite of a complete absence of further Oboe Mosquitoes to correct the marking during the next eighteen minutes, the enormous concentration of fire bombs dropped ensured the attack's success. The city's defences were overwhelmed by the weight of the attack. 'They city went up like a volcano,' one of the No 35 Squadron markers reported. 'The first loads of marker flares and fire-bombs all went down within seconds of the red Oboe markers appearing.' The degree of concentration in the early minutes of the attack was such that six bombers were themselves hit by falling incendiaries.

The catastrophe which hit Wuppertal-Barmen that night could in fact be attributed to the employment of fire-raisers – in this case Lancaster bombers each loaded with ninety-six thirty-pound liquid-filled incendiary bombs and 1,080 of the four-pound thermite fire-bombs. In spite of decoy sites over 475 of the crews dropped their bomb loads within three miles of the aiming point in the heart of Wuppertal-Barmen, a total of 1,895·3 tons hitting the city.

In the absence of any significant creep-back Wuppertal-Elberfeld was unscathed; R.A.F. Bomber Command had to return a month later to deal with Elberfeld. In Barmen however over ninety percent of the built-up area was devastated, with damage covering a thousand acres, almost twice the area destroyed in London during the whole war. The railway station, two power-stations, two gas-works, a waterworks, and five of the six major factories were damaged. Wuppertal's industrial production was set back by fifty-two days, compared with thirty-nine in Coventry. In this one attack the R.A.F. had killed 2,450 people (compared with the Luftwaffe's 'score' of ninety in Guernica, 380 in Coventry, and 980 in Rotterdam); the attack on Elberfeld a month later would bring the total for Wuppertal to 5,200.

This was the first air raid to cause civilian casualties on such a scale and as such it attracted special attention by the German war leaders; even in London there were murmurs about the raid. In its first leader on May 31, *The Times* 'recognised and regretted that no matter how accurate allied bombing of military objectives may be – and the degree of accuracy is very high in the R.A.F. – civilian losses are inevita-

ble.' The newspaper reminded those who might be tempted to question this apparently brutal use of the bomber weapon that 'it was not questioned in either Germany or Italy when the Luftwaffe was turned loose against undefended Rotterdam in 1940 and killed many thousands of civilians, men, women and children.' For Germany the wheel was turning full circle, if a shade unjustly.

That hypocrisy was not the prerogative of Allied editors was cynically demonstrated by the speech of Hitler's propaganda minister Dr Goebbels, who addressed the mourners at the mass funeral arranged for Wuppertal's air raid victims on June 18, 1943: 'This kind of serial terrorism,' he exclaimed, 'is the product of the sick minds of the plutocratic world-destroyers.' He added: 'A long chain of human suffering in all German cities blitzed by the allies has borne witness against them and their cruel and cowardly leaders – from the murder of German children in Freiburg on May 10, 1940, right up to the present day.'[16]

Just as the German raid on Rotterdam had begun to figure more frequently in the Allied statements on the history of the air offensive, so the Germans had more and more recourse to the story of the mysterious Freiburg raid; they even claimed it in a government White Book published in 1943 as the start of the bombing offensive by the British or French. However, as Hitler, Göring, and Dr Goebbels themselves had known from the very evening of the Freiburg affair, the three twin-engined bombers which had bombed Freiburg that afternoon were German Heinkel 111s dispatched from the bomber station at Lechfeld, near Munich, to bomb the fighter airfield at Dijon in France; their pilots claimed to have lost their way in the clouds and 'attacked Dôle' near Dijon. The serial numbers on the bomb fragments and the unexploded bombs had proved conclusively that they were German bombs which had originally been delivered to Lechfeld airfield. It was a mistake that any operational crew could make in the heat and excitement of its first sortie; Allied airmen made many similar errors later in the war. But, before six years were out, over 635,000 German civilians were to die in an air offensive for which they now had in part their own leaders to blame.

[1] The Butt report and its background are described in Professor R Harrod, *The Prof.* (London, 1959) and Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.i, and vol.iv, p.205.Stationery Office

[2] Professor P M S Blackett, 'A Note on Certain Aspects on the Methodology of Operational Research,' in British Association *Journal*, vol.v, No17, APR 1948.

[3] Hansard, *House of Commons Debates*, vol.382, col.710.

[4] Cf. *The Biological Effects of Explosions*, Prof. S. Zuckerman (HMSO, London, 1953); Hansard, -*Parliamentary Debates*, Vol.382, Col.710; P L Krohn, D Whitteridge, and S Zuckerman, 'Physiological Effects of Blast' in *Lancet*, 1942. *Operational Research* (Science at War, HM Stationery Office, 1947) also adds: 'Zuckerman was able to forecast the average number of casualties which would occur if one ton of bombs was dropped on one square mile of territory of given population density… the results of these investigations became a guide to future bombing policy.'

[5] Blackett, *Tizard Memorial Lecture*, Feb 11, 1960.The file on the controversy is in the papers of Lord Cherwell (as Lindemann at this time became), in Nuffield College Library, Oxford. – In view of the controversy which developed over the validity of Prof. F.A. Lindemann's forecast, it is interesting to observe in the Appendix to this book that at least as far as the raids discussed here are concerned, Prof. Blackett's estimate of the deaths and thus of industrial damage would have been out by a factor of over 51, while Prof. Lindemann's estimate of the homeless would have been out by a factor of only 1.4. – See too Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.i.

[6] Elizabeth C Corwin, 'The Dresden Bombing as Portrayed in German Accounts, East and West,'*UCLA Historical Journal*, vol.8, 1987.

[7] Sir Charles Snow, *Science and Government* (London, 1961). In this volume was born the phrase 'corridors of power.'

[8] Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vols.i–iv.

[9] Ibid., vol.iv, pp.153–4.

[10] For H_2S see Dudley Saward, *The Bomber's Eye* (London, 1959).

[11] See the mimeographed reports, *Sitzungsprotokolle der Arbeitsgemeinschaft Rotterdam* (Zehlendorf, 1943), especially the session dated Jun 22, 1943.

[12] Hansard, *House of Commons Debates*, vol.387, col.1622, and vol.393, cols.363–4.

[13] The *Bomber's Baedeker*, Guide to the Economic Importance of German Towns and Cities, 2nd 1944 edition, issued by the Enemy Branch (Foreign Office and Ministry of Economic Warfare), in PRO file AIR.14/2663; and Maxwell AFB, microfilm 512.611–39.

[14] *Royal Air Force*, vol.ii, pp.290–1; Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.ii, pp.131–2.

[15] These data are from the report by Major Dahl of Luftgaukommando VI, Münster: 'Erfahrungsbericht über Aufklärung und Gegenmaßnahmen zum englischen Oboe-Verfahren', May 30, 1943.

[16] Text from *Völkischer Beobachter*, Jun 19, 1943.

Fire-Storm

As the battle of the ruhr approached its end in July 1943, it was clear that the German defences were becoming increasingly successful. During the later months of the battle, the rate of abortive sorties, something of a barometer of aircrew morale within Bomber Command, had risen from month to month; as the German ground and air defences took an ever higher toll of the attacking formations, more and more crews were observed to be returning early, finding often only the most minute faults in their machines to justify their action. The Command's Operational Research statisticians had calculated that an average casualty rate of seven percent in each mission would allow only ten crews in every hundred to survive a tour of thirty operations; in some raids on the Ruhr this morbid statistic had even been exceeded.

Even before the Wuppertal raids of May and June, the heavy losses had persuaded Sir Arthur Harris that the optimum time had arrived for Window to be used; Window – called 'chaff' by the Americans – was the code-name given to bundles of 27-centimetre long strips of metal foil which, released in slowly descending showers from the aircraft of a bomber stream, would make it difficult for both the Würzburg-Riese early-warning radar and the Würzburg-Dora flak-predictor radar to obtain fixes on individual aircraft in the stream; these radar systems were at the heart of the enemy's air defence system.

The Germans, whose own early warning system had been in operation almost as long as the famous radar chain set up by Britain in 1935, had long recognised the possibility of blinding radar sets with metal foil, but they had shied away from using

the technique, in case this gave the idea to the Allies whose bomber forces were now vastly more powerful than their own.

Sir Arthur Harris had already pressed his view at a conference called on April 2, 1943 to discuss the W*indow* problem. He urged the Air Ministry to authorise its use at once.

In fact at an earlier conference on Window, held on November 4 the year before, with Bomber Command represented by Sir Robert Saundby, there had been rather less pressure from Sir Arthur Harris on this problem. Discussing this apparent indecision later, Saundby would refer to the example of the premature deployment of the Tank in the First World War, before this weapon was available in sufficient numbers to be decisive; until Bomber Command was in the position to dispatch a very large number of aircraft with the necessary means of releasing Window correctly, Saundby explained, and until the technique could be introduced suddenly and at the tactically most opportune phase of the air war, Harris was unwilling to betray this new tactic to the enemy.[1]

Bomber Command's earlier reluctance, as voiced by Saundby, met with stiff opposition from Sir Henry Tizard, who was present at the conference as a radar expert. Tizard founded his objections on the contents of an Air Scientific Intelligence Report which indicated, correctly, that the Germans already knew all about the Window principle. Of course Bomber Command might argue that there was a broad gulf between the theoretical understanding of a principle and its operation in practice.[2] By the beginning of April 1943, however, Harris had decided that the moment had arrived for the sudden employment of Window, to snatch a brief respite from the defences during which he might inflict a real catastrophe on Germany. Both at that conference on April 2 and at a subsequent Chiefs of Staff meeting he was overruled, and there was a further delay in the introduction of Window.

Only on July 15, at a conference at which the Prime Minister, Professor Lindemann – now Lord Cherwell – and the Chief of the Air Staff were present, was the final approval given, despite vigorous opposition from Herbert Morrison who as Home Secretary was responsible for Britain's civil defences. The air ministry authorised Harris to commence 'Window-ing' from July 23, 1943.[3] But already time was run-

ning short: already Germany was conducting research into a new night fighting tactic, employing what Harris afterwards described as a 'running commentary,' which would partially compensate for chaos inflicted on the defences by Window.[4]

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During June 1943 Major Hajo Herrmann, a former Luftwaffe bomber pilot now flying day-fighter sorties over the Reich, had suggested to General Hans Kammhuber, then Inspector of Night Fighters and commanding general of the XIIth Air Corps, the night fighter command, a new tactic to thwart Bomber Command's colossal night raids: since these in effect created daylight conditions over the target cities, said Herrmann, what with the Pathfinder flares, the searchlights, and huge areas of incendiary fires, it would be possible to employ single-engined day-fighter aircraft like the Me. 109s and FW. 190s using 'cat's-eye' interception techniques over the target itself, provided of course that the heavy flak was instructed to restrict their fire to a certain altitude above which the fighters could visually engage the bombers.[5]

General Kammhuber, a doctrinaire tactician of the old school, pooh-poohed Herrmann's idea. He claimed that it had been tried out as early as 1940 – it had failed then and it would not succeed now; Kammhuber relied on his rigid system of 'fighter boxes' in which each night fighter pilot was brought into contact with single enemy bombers by ground radar units. Disregarding the general's instructions – even as the British were gearing up for the first use of Window – Major Herrmann commenced unauthorised experiments together with six comrades, all veterans of bomber raids on England. Expecting an early assault on the Reich capital, they came to a private agreement with General Schaller, Commander of Berlin's Flak Division, that if his men were operating fighter patrols above them, the heavy gun batteries would fire only up to a certain height.

There were however likely to be no attacks on Berlin for several months – the summer hours of darkness were too short – so within a few weeks Major Herrmann removed his tactical experiments to the Ruhr, where he was put his theories to the test over Essen and Duisburg with the co-operation of General Hintze, commander of the Ruhr's 4th Flak Division. The flak was instructed to keep its range below

twenty-two thousand feet, above which altitude Herrmann and his comrades would operate. Their successes were immediate and impressive. Herrmann was telephoned by Reich Marshal Göring himself, head of the German air force: he ordered Herrmann to report to him at Carinhall, his mansion in the forests outside Berlin on June 27[6]. Here the young major expounded his new tactical theory to Göring: 'From every direction, all available fighters must be assembled even while airborne and hurled en masse against the enemy, perhaps in several sorties each night; the fighters must no longer be tied down to their individual fighter boxes,' – the nucleus of the Kammhuber Line – 'but directed by voice communications at the bulk of the raiders right over the target itself. The Me. 109 and FW. 190 day-fighters should be equipped with drop tanks to increase their range for night-fighting. Above all, the fighters will not return to their home airfields, but will roam far and wide pursuing the enemy formations until they run out of fuel, when they will land and refuel at the nearest available fighter station.'

Impressed, Reich Marshal Göring ordered him to put his ideas to General Hans Jeschonnek, Chief of the Luftwaffe's General Staff. Jeschonnek told Herrmann to set up three wings at once, each with forty Me. 109s or FW. 190s, to operate from the fighter airfields at Bonn-Hangelar, Rheine, and Oldenburg. 'Given the right weather,' Göring's deputy Erhard Milch wrote to him, on the twenty-ninth, 'we can expect substantial successes.'[7] Major Herrmann promised Göring that by the end of September his new force would be operational; in fact, within less than three weeks his force, code-named 'Wild Boar,' would begin its activities, baffling Bomber Command's Operational Research experts with the unaccountably high casualty rate which the Command was again suffering, in spite of the final introduction of Window.

On the night of July 3–4 Herrmann and his six comrades, piloting single-engined FW. 190 and Me. 109 planes, took off from Mönchengladbach on the western edge of the Ruhr to engage an approaching formation of R.A.F. heavy bombers. Within a short time, the Ruhr's powerful batteries of 150-centimetre and 200-centimetre searchlights had illuminated a patch of sky across which Herrmann's pilots could make out some fifty to sixty four-engined bombers crawling towards Cologne. They joined a running battle which continued, even though Herrmann had reached no

agreement on altitudes with General Burckhardt, Commander of the 7th Flak Division (Cologne), right over the target city. The bombardment of Cologne began three quarters of an hour after midnight and lasted for two hours. By the time the unwelcome attentions of their own flak guns forced the seven fighters to break off the engagement they claimed to have destroyed twelve of the thirty-two British aircraft which did not return from Cologne.

Major Herrmann reported the little victory that same night to the Commander-in-Chief (Centre), Colonel-General Hubert Weise; he apologised for having adopted tactics forbidden by Kammhuber, but added that 'in spite of the hot metal flying around over Cologne' he and his men had destroyed twelve enemy raiders.[8] 'You just have to hang around the flare-clusters,' he reported at a conference on July 6, and added the view that a proper force of such freelance night-fighters would soon be shooting down eighty bombers a night.

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Late on July 23, 1943, Bomber Command's crews were ordered to prepare for operations that night.[9] It was the day that Sir Arthur Harris had finally won permission for Window to be used for the first time. Before his crews had time to find out what target was in store for them – it was Hamburg – the night's operation, code-named 'Gomorra,' was scrubbed. On the following morning, a dry and sultry July 24, he again issued the executive order for the Battle of Hamburg to begin. By 10:30 P.M. the first Pathfinder aircraft were taking off and setting course for the rendezvous over Cromer on the East Anglian coast. Zero hour over the great German port would be at one A.M.

The weather conditions could hardly have been more propitious for the incendiary. The temperatures in Europe that July had been inordinately high, with the fall in Hamburg itself of less than 1·7 inches of rain; the highest rainfall was of only half an inch on July 22.

The atmospheric humidity at Hamburg in the first twenty-nine days of July was only seventy-eight percent, with the lowest humidity, of only thirty percent, recorded on July 27 – significantly, the fire-storm night. During the first half of the

month the city had baked in a heatwave: mid-day temperatures had not fallen below 89° Fahrenheit; between July 15 and 25 the thermometer fell to an average 77°, and rose steadily thereafter to an average of 84° on the twenty-sixth and 89° on both the twenty-seventh and the following day. The air was still, arid and hot. On the opening night of the Battle which is now to be described, forecasters had predicted a slow south-easterly breeze varying from ten knots at five thousand feet to only fifteen knots at twenty thousand feet over Hamburg; but even this breeze was hot and dry, coming off the parched plains of western and central Germany.

What meteorologists with an ominous turn of phrase term a hot air 'chimney' lay over the city of Hamburg on July 24–25, the night of the first attack, and this chimney did not go away until its evil function had been performed.

During the first years of the war, air raid precautions in the target city had been advanced to a degree unknown in other German cities. By the time of the Battle of Hamburg, 61,297 of the 79,907 buildings in Greater Hamburg with cellars had been shored up and splinter-proofed; but a further 42,421 buildings, mostly in the more-waterlogged areas of the city, had no basements – without water-proof tanking, they would have flooded too easily. A programme of shelter- and bunker-building was launched for these areas above ground. In accordance with the Führer's Shelter-building Programme of August 1940, householders had to construct a honeycomb network of wall-breaches [M*auerdurchbrüche*] connecting adjacent basements; by 1941 this work was virtually completed.

Hamburg had exploited every method of securing emergency supplies of water in the event of a major conflagration: swimming pools, rain-water tanks, wells, industrial cooling-towers, empty oil-storage tanks, even the cellars of blitzed buildings had been flooded with water and prepared for emergency use. The city's main features had been cleverly camouflaged: the outlines of both Alster lakes had been changed and a dummy railway bridge built across them several hundred yards from the real Lombard bridge; the central railway station was completely hidden and in early 1943 a screen of smoke-generators was installed around the U-boat pens. Fire-prevention experts had advised homeowners on the clearance of roof-spaces, on the construction of ceilings in commercial and industrial premises that were proof against pen-

etration by incendiary bombs, and, in the latter part of 1942, on the thorough chemical fire-proofing of roof timbers and attics.

Astute though these precautions and profound though the foresight of the Hamburg city fathers had been in promoting all of these schemes, all were doomed to collapse under the weight of the great raids of the Battle of Hamburg.

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In Hamburg July 24, 1943 had already been punctuated by public air raid warnings at 12:18 P.M. and 9:23 P.M., but in both cases the All Clear had sounded without incident a few minutes later. At nineteen minutes after midnight on the twenty-fifth however a confidential warning was transmitted to all Party and industrial establishments and to the city's hospitals: Air Danger 30.

Five minutes later the state of alert was amended to Air Danger 15. The first waves of the bomber formations were still far out to sea, but the large radar early warning stations at Cuxhaven and Wangerooge had already picked them up. With rather under half an hour to go to zero hour, at thirty-three minutes past midnight the first public warning of imminent danger was sounded – not the usual Forewarning, but a sudden series of twelve-second blasts on the city's sirens: Fliegeralarm, Full Alarm. For a full minute the sirens' wailing echoed dis-synchronously across the city with its 1,700,000 inhabitants from Blankenese in the west to Wandsbek in the east, from Langenhorn in the North to Harburg in the heart of the dockyard area to the South.

The leading aircraft in the 791-strong main force of bombers were the twenty Blind Marker aircraft of the Pathfinder force, each navigating by 9·2-cm H_2S radar; their assigned task was to release salvoes of yellow Target Indicators blindly, on the indications of their radar screens alone. The T.I.'s were bomb-shaped containers fabricated from sheet steel, each of which explosively ejected sixty pyrotechnic candles, each burning at 25,000 candle-power, at an altitude of two thousand feet; the distinctive flares would burn fiercely in a 300-foot wide patch of brilliant, inextinguishable yellow light on the ground. At the same time as setting these 'primary markers' the Blind Markers had to release parachute flares over the city area. Guided by the eight primary markers, eight more Pathfinder crews, also equipped with H_2S,

were to attempt to identify the actual aiming point – in the heart of the southern residential areas of Hamburg's inner city – and to mark it visually with red ground-burning T.I.'s.

These twenty-eight Pathfinder aircraft were thus the first aircraft to arrive over Hamburg on the night of July 24–25. They were also the first to release Window operationally during the war. The predicted confusion of the German defences did not however immediately arise, as an extract from the log-sheet of one of these blind-marker aircraft shows: (The aircraft was a Lancaster from the veteran No 83 Pathfinder squadron.)

> 12:28 A.M. HELIGOLAND to Starboard. Windows [*released*];
> 12:40 A.M. 028° CUXHAVEN 20 [*miles: H2S radar fix*];
> 12:50 A.M. Violent evasive action; 338° HAMBURG 22·5;
> 12:50 A.M. Position 'C'. See course for TARGET; coned by searchlights [*i.e. trapped by several searchlights after being located by radar-predicted 'Master' searchlight.*]

This shows that over twenty minutes after the first release of Window the German searchlight batteries were still 'clear-headed.' But the rate of Window-ing was increasing as more bombers passed the 7·5° East datum line, and although at one bundle per aircraft per minute the metal foil was not being scattered as voluminously as during later stages of the war, the increasing saturation of the air space over the German Bight and Hamburg with clouds of these 'tuned dipoles' produced a cumulative effect on the ground defences.

'Ahead of us we could see Hamburg,' wrote the pilot of another Blind Marker aircraft of No 83 Squadron afterwards. 'Every searchlight in Germany seemed suddenly to have been switched on. Below us there were stabs of flame as the guns started firing. I took an accurate bearing on the target and passed it to the bomb aimer; from now on, it would be his duty to guide us in. It was five minutes to zero. As we approached, the incredible happened. The searchlights started swinging all over the sky, completely without aim. The flak became confused and wild. The radio monitors in our aircraft later reported hearing frenzied German radio operators

shouting that 'millions of bombers' were coming. The night fighters waiting to be vectored on to us could only gamble in fury as their own radar gear became useless.'

Hamburg was only ten minutes from the worst catastrophe in its history.

Within minutes the coastal radar station had ceased to transmit data; until the bombers came within range of the flak-batteries' Würzburg-Dora radars, the only source of information was visual and sound identification by the Observation Corps. 'We could hear excited voices coming from the radar cabin,' recalls one member of the crew of an eighty-eight millimetre flak-battery located on the Harburg hills. 'There was a wild display of flickers on their cathode-ray tubes, clouding the whole screen. The Battery Commander, First Lieutenant Eckhoff, telephoned at once to the nearest battery to us. The Würzburg-Dora there had been put out of action too.' On telephoning the Flak Division's operations room, the battery commander was informed that every radar set in the Hamburg area was out of action. To the British and Empire airmen flying three and four miles above the now helpless gun crews it seemed a miracle. Many had been frankly dubious of the claims their commanding officers had made for Window at the briefings that afternoon, but now their doubts were dispelled.

12:57·5 A.M. Marker bombs gone.
12:59 A.M. Over target; setting course for Position 'D'.

The eight Visual Markers now attempted to sight and identify the marking point; only a slight haze prevented otherwise perfect visibility but the visual marking fell short of perfect, one salvo of the red T.I.'s falling two miles to the south-east, another one and a half miles to the north-west, a third three and one quarter miles to the north-east, and yet a fourth two and one half miles to the west in Altona. Large though these margins of error may seem, it must be remembered that they were being dropped from a level of some four miles above the target. The main force of bombers, faced with only an ineffective barrage of unaimed fire from the flak, were equal to the task of bombing on these four concentrations of markers.

Of the 728 crews which subsequently claimed to have attacked, no fewer than 306 were found from their night-photographs to have placed their bomb loads within a three-mile radius of the aiming point in Hamburg; the crews dropped 1,350 tons of high explosive including many hundreds of 'blockbusters' which were concentrated in the early part of the attack to rip open the houses and provide combustible material for the 932 tons of fire bombs carried by the force.

Hamburg's Police headquarters was gutted and the civil defence control room was engulfed in fire. Operations were transferred to the Security Police control room; although the telephone service broke down, it was swiftly superseded by motorcycle despatch-riders.

This first raid of July 24–25 caused enormous fires. They had not been extinguished even after twenty-four hours. The citizens of Hamburg had accumulated large stocks of fuel for the winter in their cellars, and when these stocks caught fire they could not easily be quenched. 'One single suburb,' gasped Hitler at his mid-day conference in East Prussia, 'has lost eight hundred dead!'[10]

By the time that the All Clear sounded at one minute past three in the morning, fifteen hundred people had been killed.

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The sudden use of Window by the British caused pandemonium at Luftwaffe headquarters. The Kammhuber Line was useless. In the early hours of July 25 Major Hajo Herrmann was for the second time in three weeks telephoned at his airfield at Mönchengladbach by Reich Marshal Göring; the Luftwaffe commander told him that it had been 'very bad' in Hamburg and asked whether at least some of the new Night Fighting Experimental Kommando could be thrown into action at once, as he anticipated further attacks on Hamburg. Major Herrmann promised to have at least twelve fighters airborne that night.

On receiving Göring's subsequent telegram of confirmation, he understood the reasons for the pressure. The night's raid had devastated the Hamburg districts of Hoheluft, Elmsbüttel and Altona as well as the inner city. The conditions would have been perfect for his 'Wild Boar' units over the city – the enemy bombers would have

been clearly silhouetted against the burning streets below. Working in great haste Herrmann improvised an orientation system for his fighter pilots, who had no second crewman to act as observers or navigators and were accustomed to day fighting conditions: he arranged for the Hamburg flak batteries to fire triple parachute flares of a certain colour, the Hanover batteries two flares, and similarly distinctive flare signals would be constantly fired over the main cities to enable the fighter pilots to find their way; later on, this system would be replaced by a more sophisticated radio beacon network.

During the first night of the Battle, the British had lost only twelve bombers to enemy action out of the 791 dispatched, thanks to Window; the flak and the fighters claimed six each. As a direct consequence of Major Herrmann's new tactic, however, these losses would now rise sharply. That night, July 25–26, Air Vice-marshal Donald Bennett, to whose Pathfinder crews so much credit was due for the success of the Battle of Hamburg, sent his light Mosquito force to harass the city; the sudden Fliegeralarm sounding at thirty-five minutes past midnight awakened fresh fears in the inhabitants. The main attack of that night however was on Essen, with a zero hour ten minutes later. The Essen raid, Bennett afterwards explained, was 'to fool the German defences, but I sent a few Mosquitoes along to Hamburg to ring the alarms and make the frightened people in Hamburg frightened once again. On the 26th I did the same, just to keep their nerves on edge.' – On the twenty-sixth two Mosquitoes dropped only two high explosive bombs on the city; but they sent one and a half million people to their shelters for another thirty-one minutes.

Even if no other intelligence betrayed to the Germans that it was Harris' intention to attack Hamburg night after night until it was totally destroyed, this round the clock intimidation of the population did. 'The continuation of the first raid by daylight and nuisance raids until the morning of the 27th disclosed the enemy's intentions,' wrote S.S. Gruppenführer Kehrl in his report. As police chief – Polizeipräsident – Kehrl was ex officio director of Hamburg's civil defences. 'When a fifth alert was sounded during the night of July 27–28 we were not surprised, but the weight of the raid exceeded all our expectations.'[11]

Harris had devised the bombers' route that night with the intent of throwing the enemy defenders off the scent. The main force and the Pathfinder squadrons had headed out over the North Sea from Cromer on two different routes, meeting at an appointed rendezvous some forty-five miles west-north-west of Heligoland and thereafter passing some miles south of Kiel naval base. Here the whole force turned onto a southerly route across Hamburg; after the attack the force divided again some thirty miles south of the city over the Lüneburg Heath; one section headed north-west out to sea, and the other due west across country in an almost direct line for Cromer.[12]

At five minutes to one the Pathfinders released the first of fifteen salvoes of yellow Target Indicators over Hamburg. This time the eight Visual Markers had been dispensed with, in recognition of their aiming errors three nights before. The H_2S radar marking had proved far better. All twenty-five primary marker aircraft were to drop their yellow T.I.'s blindly on the basis of H_2S radar alone – Hamburg's intricate network of waterways showed up particularly clearly on the radar screens. There were minor improvements on the previous raid's marking technique: during the previous main force raid a seven-mile 'creep-back' had developed, with each new load of green 'backing-up' T.I.'s only aggravating the error. On this second main force raid, the wave of 'Backers-Up' were instructed to overshoot the main yellow concentration of ground marker T.I.'s by about two hundred yards to compensate for this main-force error. This time the blind-laid yellow T.I.'s were well concentrated in the Billwärder district, one of the most densely populated areas of Hamburg's inner city.

By 2:40 A.M. when the All Clear sounded, a single one-minute siren tone, the bombers had dropped a further 2,382 tons of bombs. 'As a result of the high-explosive bombs and "blockbusters" dropped,' the Police President described in his report, 'large numbers of roofs were stripped and the windows and doors were blasted open and smashed; the Self Protection Service was driven for shelter into the cellar.' The Selbstschutz included voluntary civil defence personnel, local air-raid wardens, etc. 'The continually alternating hail of high-explosive and fire-bombs and "blockbusters" enabled the fires to spread virtually unhindered.'

Since the bomb load included liquid incendiaries, fires spread rapidly from the attics and upper floors downward into the lower storeys. With 969 tons of incendiaries dropped, the proportion of fire-bombs was considerably higher than in the first main-force raid.

Forty minutes after zero hour it was recognised that Germany's first fire-storm had begun, the tornado of rising hot air sucking in fresh oxygen from all around, the resulting tempests reaching such hurricane strengths that they tossed entire buildings, railroad boxcars, vehicles, trees and people willy nilly into the searing inferNo Fires flashed through entire streets in seconds. Few people who came close enough to witness the infernal scene survived. It was a fiery moloch which consumed all those who set eyes upon it. The heat was so fierce that it melted glass, steel, and bricks; it incinerated buildings, shelters, and their occupants without regard for sex, age, or infirmity. [13]

This second attack of the Battle of Hamburg had embraced eight square miles of the city's most heavily built-up and densely-populated area, with a registered resident population of 427,637 inhabitants swollen by thousands of evacuees from the area blitzed three nights before. The area ravaged by this fire-storm included the four districts of Rothenburgsort, Hammerbrook, Borgfelde and South Hamm. In these four districts the fatality rates were appalling – 36·15 percent, 20·1 percent, 16·06 percent, and 37·65 percent of all known inhabitants. When Dr Goebbels phoned his old friend Karl Kaufmann, the Hamburg gauleiter screamed down the line: 'We've got fifteen thousand dead.' [14] Kaufmann told Göring a few hours later that twenty-six thousand bodies, mostly women and children, had been counted. The figure would eventually climb to nearly fifty thousand. The photographs showed the streets littered with flame-seared bodies, many of women lying tangled with their obligatory 'air raid suitcase', sometimes stripped naked by the hurricane winds; one picture showed a little boy hugging a fireman, both dead in each other's embrace.

It was plain that Bomber Command would return. The following day Dr Goebbels appealed to all non-essential civilian personnel to leave the city. Hamburg waited and sweltered – the noon temperature was still over 84°F. Between dawn and dusk

of July 28 nine hundred thousand civilians streamed out of the centre of Hamburg. As night fell only essential fire-fighting and defence personnel were left.

Two minutes before midnight, their grim expectation was fulfilled as those of Hamburg's sirens which still had their voice and power sounded the Full Alarm. The Pathfinders again adopted the pure H_2S blind marking which they had used with such catastrophic success on the previous night; in spite of favourable weather however the marking was less accurate – a measure of the renewed threat presented by the German defences. Of the 777 Lancasters, Halifaxes, Stirlings and Wellingtons despatched, only 699 crews claimed to have attacked, dropping 2,382 tons of bombs; this was a higher rate of abortive sorties than previously. Despite Window, the loss rate was climbing again. Major Herrmann's 'wild boar' pilots accounted for eighteen of the twenty-eight bombers destroyed that night. The Official History of the strategic air offensive states that '24 minutes after zero hour, which was at a quarter to one, an area of 24 square miles was dotted with burning incendiaries.'[15] The police chief Kehrl confirmed that this raid of July 29 was as devastating as the fire-storm raid of the twenty-seventh; the low loss of life in this third attack could be attributed partly to Goebbels' evacuation order.

During the four main-force attacks of the Battle of Hamburg – there was a final raid delivered under adverse weather conditions on the night of August 2–3 – Sir Arthur Harris had dispatched 3,095 sorties; the aircrews released 7,931 tons of bombs, nearly half of them incendiaries, for a total casualty rate of 2·8 percent. The Pathfinder Group had dispatched 472 sorties losing thirteen aircraft, also 2.8 percent of its sorties.

As a direct result of this hard-fought Battle of Hamburg, as the police chief reported on December 1, 1943, the known dead totalled 31,647, of which 15,802 had been identified – 6,072 men, 7,995 women and 1,735 children. That could not be regarded as a realistic final figure however as the centre of Hamburg was still in ruins. At the end of 1945 the U.S. Strategic Bombing Survey suggested a corrected figure of 42,600 killed and 37,000 seriously injured.[16] After investigating the final totals of missing persons Hamburg's provincial bureau of statistics, the Statistisches

Landesamt, arrived at an estimate of over fifty thousand dead in the 1943 Battle of Hamburg.

Whether the virtually complete destruction of a major German city really achieved any positive effect on the course of the war is a moot point. In fact the city's heavy industries lost about forty-five days' production. Of the 524 major factories, 183 had been destroyed; of Hamburg's smaller plants, numbering 9,068, 4,118 were destroyed. The U.S. Strategic Bombing Survey, generally regarded as hostile to the British bombing effort, estimated that within five months Hamburg had recovered eighty percent of its former productivity. The American statisticians however ignored the argument which Sir Arthur Harris would vigorously stress: what would have been the level of productivity within those five months if Bomber Command had not thus checked its expansion in its stride?

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While undoubtedly the Battle of Hamburg had contributed to the Casablanca Directive's target of 'the progressive destruction and dislocation of the German economic and industrial system' or not, by the time that the final All Clear echoed across the now rain-soaked and wrecked city in the early morning hours of August 3, 1943, the British airmen had taken the lives of fifty thousand civilians, all of whom in the years immediately preceding the war both belligerent parties had earnestly sworn to protect.

'The streets were littered with hundreds of corpses,' S.S. Obergruppenführer Kehrl described, 'Mothers with their children, youths and elderly people; sometimes their bodies were charred and burned, sometimes untouched; sometimes they were clothed, sometimes naked, with a waxen pallor like tailors' dummies. They lay in every attitude, now quiet and composed, now hideously contorted, with the final struggle of death crying out in every line of their faces.' Even those who had reached the public air raid shelters had not escaped; there scenes were little different, unusual only where panic had broken out as the people realised the nature of the fate they would never elude. 'Here and there the positioning of the remains of the bones

and skulls betrayed how the occupants had fought each other to escape from their buried prisons.'

When rescue teams finally cleared their way into the hermetically sealed bunkers and shelters after several weeks, the heat generated inside them had been so intense that nothing remained of their occupants; a soft undulating layer of grey ash was left in one bunker, from which the number of victims could only be estimated as 'between 250 and 300' by the doctors. Doctors were frequently employed in these gruesome tasks of enumeration, as the German Reich Statistical Office was up to January 31, 1945 most meticulous about compiling its statistical tables and data. The uncommon temperatures in these bunkers were further testified to by the pools of molten metal which had formerly been pots, pans, and cooking utensils taken into them.

The task of recovering the bodies was allocated to the Sicherheits-und Hilfsdienst (S.H.D.), the Rescue and Repair Service, which was organised in five divisions: fire service, comprised of local fire-brigades as distinct from the para-military national service; Instandsetzungsdienst, the service which repaired fractured gas mains, restored electricity and water supplies, and demolished dangerous structures; the medical service, organised by the German Red Cross; the decontamination service, for counter-measures during allied gas-attacks, and finally the veterinary service for tending wounded livestock and pets.

In Hamburg the S.H.D. cordoned off a two-and-a-half mile square Dead Zone, embracing the whole fire-storm area; streets into this area were sealed with barbed wire and dry masonry. This measure was necessitated both the undreamed of accumulation of corpses inside this area, and by the belief that publicly visible recovery operations would injure civilian morale. A special security formation of police battalions was drafted in from outside Hamburg to maintain law and order, to forestall mass breakouts by prisoners or foreign labourers in the city, and to bolster civilian morale; according to the Police President they were not heeded, and were soon disbanded.

Most of the credit for the restoration of civilian morale in Hamburg itself could be attributed to the prompt arrival of Dr Goebbels from a week-end vacation with his

wife in Dresden. He was keen not only to organise on a large scale the relief measures and rehabilitation of the homeless: he wanted to gather experience for his own city, for he expected the R.A.F. soon to do unto the Reich capital what it had now done to Hamburg.

Hitler's armaments minister Albert Speer expressed the view under interrogation that if six more German cities had been similarly devastated, he could not have maintained arms production. Air Vice-marshal Bennett afterwards went further: 'Unhappily,' he wrote in his memoirs, 'nobody seemed to realise that a great victory had been won… Whatever the chances of success might have been, it would have been certainly worth while to have tried to have weakened German morale by some appropriate political action.' But Harris would point out that with the best luck in the world Bomber Command could not repeat the Hamburg catastrophe on six major cities at once: 'To find new targets even half or a third the size of Hamburg, we should have had to go as far afield as Dresden or Breslau.'

The Battle of Hamburg, like the Dresden tragedy just eighteen months later, was an operation executed with the precision and determination characteristic of Bomber Command at its most puissant: the commander had fulfilled his commission of briefly demoralising the enemy; it was the tragedy of Casablanca, that the same political leaders who had given the Command its directive had by their requirement of 'unconditional surrender' ensured that the best that the Command could accomplish on this front would not shorten the war by one day.

[1] Sir Robert Saundby in an interview with the author.

[2] Thus, we learn from post-war study of the Protocols of the *Arbeitsgemeinschaft 'Rotterdam'*, the German scientific committee investigating the Allies' decimetric radar – *Rotterdam* was their codename for H_2S, salvaged in Jan 1943 from a Pathfinder bomber which crashed near that city – that as late as September 1944 they were still wrestling with the probability theory and other mathematical

niceties connected with the ideal dimensions and stiffness of the metal foil,; the imitation Window (code-named *Düppel*) which they developed had only limited success.

[3] On the night of Mar 3–4, 1943, during an RAF Bomber Command attack on Hamburg, metal foil was dropped along the Elbe Estuary and over various towns on the route of the bomber formations to Hamburg; this had not been authorised by either Sir Arthur Harris or Sir Robert Saundby, but appears to have been one airman's private effort to spare his own aircraft or squadron from the losses which recent attacks on Hamburg invariably entailed, by releasing the Window already supplied to his station.

[4] Historians are unanimously incorrect in asserting that this running commentary tactic was an ad hoc emergency measure devised by frantic German defence experts after the success of Window on the first night of the Battle of Hamburg. See below for evidence that its was in preparation for over a month before, pp.00-00.

[5] Hajo Herrmann, holder of the Knight's Cross, and still alive as the revised edition of this book goes to press, has more recently acted as the author's brave attorney in many a stiff legal skirmish with the present German authorities – thirty years after these lines were first written.

[6] See Göring's diary record of their conference of Jun 27, 1943, in David Irving, *Göring* (London, 1989), p.389; for the conference transcript, see Milch Documents, vol.63, pp.5,842 et seq. (Bundesarchiv.)

[7] Milch to Göring, Jun 29, 1943 (Ibid., vol.51, p.514).

[8] The reply of Weise showed that he had forgiven Hermann already: '4th July 1943. Top Secret Telegram to Major Hermann, Night Fighting Experimental Kommando, Mönchengladbach. Express my admiration of you and your men for the first magnificent success of your Experimental Kommando over West German industrial area, especially since on your own initiative you executed operation in the area most heavily attacked last night. C.-in-C. (Central), WEISE.'

[9] For the raids on Hamburg see Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.ii, pp.138–167, and *Royal Air Force 1939–1945*, vol.iii, pp.5–11.

[10] Navigation charts were supplied to the author by Pilot Officer J Moorcroft.

[11] Helmut Heiber (ed.), *Hitler's Lagebesprechungen* (Stuttgart, 1962), Jul 25, 1943 (pp.309 et seq.).

[12] S.S. Gruppenführer Kehrl, 'Bericht des Polizeipräsidenten in Hamburg als örtlicher Luftschutzleiter über die schweren Großangriffe auf Hamburg in Juli/August 1943,' Dec 1. 1943.

[13] This contrasts with the suggestion in Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.ii., that the 787 bombers despatched once again followed a single route.

[14] For a description of the fire-storm phenomenon and the causes of death in fire-storms see Hans Brunswig, *Feuersturm über Hamburg* (Stuttgart, 1979), pp.264–280.

[15] Goebbels diary, Jul 29, 1943. Goebbels' secretary Richard Otte, taking dictation the next morning, thought that Goebbels might even have said fifty thousand.

[16] Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.ii. – This was a curiously obtuse way of saying that the bombs were scattered over a circle of radius 2.8 miles.

[17] S.S. Gruppenführer Kehrl, 'Bericht des Polizeipräsidenten in Hamburg als örtlicher Luftschutzleiter über die schweren Großangriffe auf Hamburg in Juli / August 1943,' Dec 1. 1943. – An earlier interim figure for the Hamburg death roll was given by the Hamburg Police Headquarters Report of Sep 10, 1943 as 26,409.

[18] U.S. Strategic Bombing Survey, 'A Detailed Study of the Effects of Area Bombing on Hamburg.'

A Second Firestorm

On the first night of the Battle of Hamburg the bombers' loss rate had been the lowest for a year: twelve of the 791 bombers despatched had failed to return. On the second night the losses had risen to seventeen; on the night of July 29–30, thirty bombers had failed to return; on the fourth and last night of the Battle, the loss rate was even higher.

After this comparative success of Major Herrmann's new force, now formally named the 30th Fighter Division, General Kammhuber, the Inspector of Night Fighters, called a conference of his senior officers in Berlin. Dr Goebbels, as Berlin's Reich Defence Commissioner, was not alone in anticipating attempts to repeat the success of the Battle of Hamburg in a renewed air offensive on Berlin; but the blow did not follow as swiftly as either he or the senior air officers expected. Hamburg had been principally a victim of the R.A.F.'s new 9·2-centimetre H_2S radar system; for Berlin, a city without any of the large expanses of water which characterised the Hanseatic port, the real Battle would have to await delivery to No 83 Squadron of the first operational 3-centimetre H_2S sets, with their greatly improved definition. As in the case of Dresden in February 1945, the target had to await the technology.

On the night of August 22–23 Sir Arthur Harris despatched a force of 727 aircraft to attack targets in the Berlin Tempelhof area; ninety-four of the Pathfinder aircraft carried the older version of H_2S. The same blind marking tactics, actually using where possible the same Pathfinder crews as at Hamburg, were adopted. For the crews, the Berlin raid was again remarkable for the comparative absence of flak defences over their target: crews seldom noticed heavy flak unless the shell bursts were within a few hundred feet of their aircraft, but under debriefing after this raid many airmen reported that the Germans had 'put up scores of fighters', and that there were 'about

twenty belts of searchlights inside the capital and around it, co-operating with the fighters.'

The raid had been timed to begin at 11:45 P.M., and, although Window-ing had started at 10:20 P.M., by 10:38 P.M., before the first waves of bombers had even crossed the Dutch coast, the German ground controller's running commentary was already suggesting that Berlin was the target. At 11:04 P.M., over half an hour before zero hour, all night fighters were ordered to the capital. By 11:18 P.M. aircraft were being shot down by the fighter defences all along the route from Hanover into Berlin. The result that night was that Bomber Command mourned its highest loss to date: fifty-six bombers did not return, of which at least thirty-three had fallen to the German fighter defences – no fewer than twenty of these latter over Berlin itself, a most unwelcome innovation for the bomber crews, who expected to be spared this hazard when over the heavy flak areas.

On August 31, the second night of this new Berlin series, the price exacted by the fighters was even higher: no longer tied to Kammhuber's rigid system of fighter-boxes, they were summoned from as far afield as Grove in Northern Denmark and Dijon in Central France. Zero hour was at 11:30 P.M., and once again the bombers started releasing bundles of Window some two hours previously, well out over the North Sea, to confuse the early-warning radars. Forty-seven bombers did not return to their bases, probably all of them the victims of the German night fighters who claimed as many as thirty successes over Berlin itself. During this raid, Major Herrmann employed brilliant yellow and white fighter flares for the first time in addition to relying on the glare of the batteries of searchlights to illuminate the cloud layers; he and his growing band of freelance fighters could see the British raiders clearly silhouetted against the clouds. As the Official History later observed, with a perceptibly puzzled tone, 'the [flak] barrage at Berlin had been of only moderate intensity.' The successes of the fighter squadrons were not without impact on Bomber Command's aircrew morale: a thirty-mile creep-back of bombs on this occasion testified to the unwillingness of a large number of crews to 'press on' into the heart of the target area where eight days before so many of their comrades had been lost.

This – for Bomber Command – disastrous little Berlin series ended on September 3, 1943 with a curious example of routing, overlooked by the Official Historians. The all-Lancaster bomber stream was ordered to return from Berlin over neutral Sweden; this provided the bomber crews with both a fabulous war-time glimpse of cities with all their lights on by night and the comfort of knowing that German night fighters could not pursue them; partly in consequence of this device, only ten of the attacking force fell to German fighter defences.

In the three raids, Sir Arthur Harris had despatched 1,719 sorties to Berlin, of which only twenty-seven had de5nitely resulted in bombs falling within three miles of the aiming point. In attained this meagre success his Command had lost 123 bombers, an average loss rate of 7·2 percent – higher than the level suggested by his Operational Research experts as being the maximum permissible even over a short term. He had no choice but to leave Berlin severely alone, at last until improved tactics could be evolved to counter this unexpected resurgence of the night-fighter threat.

As for Major Hajo Hermann, whose unit had saved perhaps half a million lives in Berlin, he was decorated by the Führer with the Oak Leaves to his Knight's Cross; while General Kammhuber was soon after the last Berlin raid displaced to the minor post of commander-in-chief, Luftflotte 5 in Norway; to his former post of Inspector of Night Fighters came Major Hermann, a move which augured ill for any future Battle of Berlin. The Inspector of Day Fighters was Adolf Galland, whose name appears to be better known to air historians.

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For Bomber Command it was obvious from the post-raid debriefings that most of the aerial combats now were taking place over the target area, where the concentration of bombers gave the night fighters their richest pickings. The obvious solutions were to try to deceive the German fighter controller as to the real target or targets for the night, and to keep the actual raids as short as possible. From now on the decoy raids and spoofs, executed sometimes by Air Vice-marshal Bennett's Light Night Striking Force and sometimes by entire bomber groups became more fre-

quent, their timing and routing grew increasingly complex, and their Window deception techniques and electronic countermeasures ever more elaborate, as Sir Arthur Harris tried to throw the German fighter controllers off the scent.

By autumn 1943 the German Fighter Command had completed the construction of five cavernous underground bunkers to house the fighter control rooms for the old Kammhuber Line. At Stade, a few miles north-west of Hamburg, the bunker housing the 2nd Fighter Division for the German Bight was blasted out of a cliff face and code-named Socrates; the bunker at Arnhem-Deelen housed the 3rd Fighter Division covering Holland and the Ruhr; the bunker at Döberitz housed the 1st Fighter Division covering Berlin and Central Germany, with other bunkers at Schleissheim – 7th Fighter Division, Southern Germany – and Metz. These control bunkers, aptly dubbed 'battle opera-houses' by the Luftwaffe personnel who worked there, served as clearing-houses for the information on Harris' intentions that arrived from every source including the highly advanced German radio-monitoring units; but they were also the system's Achilles Heel, because it was from here that the fighter controllers directed the airborne fighter formations by running commentary into the bomber stream.

Soon after seven P.M. on October 22, 1943, the Duty Officers in these western control bunkers were informed by telephone from the Paris Headquarters of Funkhorchregiment West – the Radio Monitoring Regiment – that the position was 'Eagles five-hundred'. By monitoring the enemy squadrons warming up their radios prior to take-off they had calculated that there would be approximately five hundred British aircraft operating that night. Soon afterwards a further report arrived, stating that the British Gee radio navigation chain had been switched on for an attack on Germany.

The duty officers took up their stations: forty switches on each control desk in each bunker provided instant communication to every fighter plane in the Division. All officers and N.C.O.'s took up their positions on the terraces of the 'opera house'. To the left of the duty officer sat two officers in contact with the distant Würzburg-Riesen early warning chain which would plot the bomber stream's path, Windowing or not. One terrace lower down sat the ten *Jägerleitoffiziere* – fighter-control

officers – already in direct radio contact with the fighter stations, ready to hook up the fighter aircraft to the senior controller as soon as the battle warmed up. At the foot of the terrace was a giant translucent screen onto which Luftwaffe girls in contact with distant radar posts projected blue and red arrows representing German and British formations respectively at thirty second intervals. In an office to one side sat twelve stenographers taking down transcripts of all telephone messages and orders.

This highly ordered and ruthlessly rational conduct of the defence of the Reich would have been better suited to earlier phases of the war. By 1943 the whole system was already severely dislocated by the development of Harris' feint attacks and the decoy Mosquito raids; on the night of October 22–23 however Harris was to toss a new and, as it turned out, literally infuriating spanner into the works as the already overburdened senior controller attempted to direct the fighter force to the correct target in time.

At 7:40 P.M. the first intelligence arrived from the giant radar stations; their Mammut and Wassermann equipment, with a range of some 190 miles, had detected enemy aircraft approaching over the North Sea. The first red arrows lit up on the screen, approaching the entrance of the Schelde. The Duty Officers ordered cockpit readiness for the entire force of night-fighters. Everything now depended on the senior controller determining which was the target for the bombers.

Herein lay a problem however because on this night R.A.F. Bomber Command was to introduce a new radio deception technique code named Corona. Air Commodore E B Addison, who was in charge of radio jamming, had discovered that the powerful Corona transmitter, originally intended to jam the VHF radio traffic between German fighter controllers and their pilots, could be put to far better use interpolating false 'fighter control' directions diverting fighters to distant corners of the Reich or, more insidiously, warning of fog closing the fighters' home airfields so that they landed prematurely. At Kingsdown, in Kent, the British government had established a radio monitoring station where they had been recording these running commentaries for some time. The Post Office had placed its most high-powered VHF transmitters at Addison's disposal and now, with a handful of Jewish émigrés, Poles,

and English linguists, each carefully shadowing a different Jägerleitoffizier and studying his idioms and dialect, their operation was ready to begin.

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The Bomber Command target for the night was Kassel, in the province of Hesse.[1] At 7:51 P.M. Hesse's flak network issued the order to 'stand by'. Seven minutes later the network carried the first warnings of 'many enemy aircraft approaching the Schelde estuary over a broad front':

> 8:01 P.M. Complete black-out. More waves of aircraft approaching Schelde estuary. Observation Post 'Dortmund' reports: Many enemy aircraft overhead. More waves of aircraft approaching Schelde estuary.
>
> 8.09 P.M. Flak: Stand by to open fire.

One minute later the flak at Kassel was reported 'standing by'.

It is clear from the transcripts written up by the stenographers that until the very last moment there was uncertainty about the destination of the bombers. Sir Arthur Harris had arranged for the actual main force attack on Kassel to be covered by a diversionary attack on Frankfurt-on-Main, commencing five minutes before the raid on Kassel, and by No 3 Group's mining operations (known as 'Gardening') off Terschelling; Harris had routed his bomber stream with deliberately ambiguity, to support the possibility of a main force attack on Frankfurt.

At 8:15 P.M. the Luftwaffe ordered Kassel's balloon barrage sent aloft. Two minutes later the city's sirens sounded the Full Alarm.

> 8:20 P.M. 4th Flak Battery [Kassel]: Picking up radar echoes.
>
> 8:25 P.M. 4th Flak Battery: Radar echoes lost.

At 8:28 the observation posts in Holland announced that the last waves of aircraft had passed overhead. To enable 'wild boar' fighter operations the flak was ordered not to set their fuses above 18,000 feet. The ᵉak gunners protested that their Würzburg

equipment was picking up radar echoes at an altitude of 19,000 feet. There was a four-minute delay while this was considered, then the flak was given permission to open fire on positively identified enemy bombers up to 23,000 feet; all Würzburg-Dora radar sets were equipped with I.F.F. attachments to identify friend from foe. At that moment the Observer Corps gave the signal that Sir Arthur Harris, and the Corona team, had hoped for:

8:35 P.M. Most probable target tonight is Frankfurt-on-Main.

Knowing that the fighter controllers were dispatching their fighter aircraft to Frankfurt the task facing the Kingsdown 'shadow' controllers was to delay the fighters as far as possible, either by instructing them to orbit particular beacons awaiting further orders or by preying on their most potent fear, of all airfields suddenly being 'socked in' by bad weather. (On November 17, during an attack on Ludwigshafen, a Corona warning that all south German airfields were becoming fogbound would achieve a dramatic collapse of the defences as most of the fighters headed for the nearest airfield: only one bomber was lost.)

On October 22–23, the night of the Kassel attack, weather conditions were in fact very poor right up the eastern edge of the Ruhr, with ten-tenths cloud up to twenty thousand feet, electrical storms and severe icing which itself forced many aircraft to return without bombing. At first bad luck dogged this first Corona deception operation: most of the night fighters had assembled over beacons north of the bomber route, to the south of which lay Frankfurt. Convinced by the diversionary attack that Frankfurt was indeed the main target the senior controller sent the night fighters streaming south, and many stumbled across the tail end of the bomber stream near Cologne, wreaking havoc on the slower Halifaxes near there. Of the forty-two aircraft missing this night, thirty-two were probably victims of the night fighters, twelve of them being from No 6 Group alone.

It certainly seemed to the Kassel defences at first that they were not to be needed that night. At 8:38 P.M. they received the signal, 'Bombs are falling on Frankfurt-on-Main.' That city was 110 miles away. But already the first Pathfinder Blind Marker

aircraft, loaded only with yellow sky marker flares, were beginning their bombing runs on Kassel. Most of their flares overshot by between one-and-a-half and five miles, although the flak would not open fire for two more minutes. Two marker flares which were released over the aiming point at 8:40 P.M. were however sufficient for the Visual Markers then arriving to drop their red target indicators with great accuracy. By 8:43 P.M., zero minus three minutes, there was a brilliant concentration of eighty red T.I.'s within half a mile of the aiming point in the heart of Kassel, a Pathfinder marking feat scarcely to be exceeded before the Dresden raids.

This was the technique which had produced the fire-storm in Hamburg, and now it could hardly fail in Kassel. In Kassel, the city was still wondering what was hitting it: Writing his report six weeks later the police chief of Kassel would observe thickly that at 8:37 the Kassel observation posts had reported bombs falling on Frankfurt and that as a result of this deception 'most of the German fighters were ordered to that zone.' Even as the first Pathfinder flares were being laid in lanes across the city, the unfortunate police chief recalled, the situation in the air was still being termed 'obscure.'[2] Then, and only then, did the city flak begin firing. It was three minutes to zero hour:

> 8:42 P.M. Half of 4th Flak Battery has opened fire.
>
> 8:45 P.M. The whole 4th Flak Battery is firing. Range found optically at 11,000 feet.

A furious *Jägerleitoffizier* ordered all fighters post-haste to Kassel. He warned all his pilots that there was a rival 'running commentary' emanating from the other side of the Channel, broadcasting false directions to them, and he ordered them not to heed it; carefully mimicking him, his Kingsdown double advised the pilots to pay no attention to this obvious British trick. Understandably the *Jägerleitoffizier* began swearing out loud; his 'shadow' coolly observed that 'the Englishman is now swearing,' upon which the German burst out: 'It is not the Englishman who is swearing, it is *me*.'

As Dr Goebbels ruefully admitted in his Diary two weeks later it was 'very humiliating to see how the enemy is leading us by the nose in the air offensive; every

month he introduces some new method, which it takes us weeks and sometimes months to catch up with.'

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In Kassel, with up to eight thousand people dying a horrifying death during those two hours, there was little cause for levity. Barely thirty minutes after the bombers' zero hour Germany's second fire-storm had broken out. Harris' bombers had dropped a total of 1,823·7 tons of high explosive and fire-bombs on Kassel. No fewer than 380 of the 444 bombers claiming to have attacked were later plotted to have scored hits within three miles of the aiming point. The night was dry and windless, as on the night of July 27–28, the second attack on Hamburg – the ideal prerequisite for a fire-storm.

Ten minutes previously the city's main telephone exchange had been hit and wrecked, and although the bulk of the reinforcements from other cities had already been summoned by the civil defence operations room, the communications breakdown critically hampered fire-fighting and rescue operations: when the individual fire-fighting regiments and brigades from all over Hesse arrived at the city outskirts, the 'pilot' offices of the Hitler Youth pilots there had no contact with defence headquarters, and after waiting for orders for a while the fire services went into action in disjointed operations in the suburbs, while the main damage areas were not tended.

At 10:10 P.M., eighty-five minutes after zero hour, the last bombers were still over Kassel, a city illuminated now both by the fire-storm and by the avenues of fighter flares above; it was undoubtedly among these final waves of bombers that the fighters reaped their richest harvest. Meanwhile the fire-brigades from the five-mile radius arrived in Kassel between 10:30 and 11:30 P.M., and those from the thirty-mile radius between 10:30 P.M. and 12:50 A.M. As the five mobile civil defence detachments already promised did not appear to be sufficient, the Police President appealed to Luftgaukommando – Air Zone Command – VI in Münster for two more.

Anticipating the destruction of the telephone network, the Kassel civil defence had organised a despatch-rider organisation for just such an emergency; but by the end of the raid the headquarters was blocked by blazing ruins, the motor-cycles had

for the most part been buried, and the streets were impassable; even those despatch-riders who were able to penetrate the city's side-streets had great difficulty in clinging to their machines, so violent was the fire-storm. Delays of over one-and-a-half hours were thus common in transmitting the headquarters' directions.

Since Professor Lindemann's proposals of 1942, Bomber Command's night offensive had had as its foundation a series of 'zoning' maps issued by the Air Ministry Intelligence Directorate dividing Germany's cities into a central zone – the ancient Inner City, often highly inflammable and densely built-up – with a thickly-populated residential zone surrounding the central zone, and a third outlying industrial zone. In Kassel, the two fire-storm areas embraced the whole central zone, especially on the left bank of the River Fulda. Costly though the attack had been to Bomber Command, its effect on the target city was a total disaster. Of a pre-raid total of 960 built-up acres, 615 had been devastated, including three hundred acres of working-class residential areas.

A preliminary report on the damage caused by this raid, issued on November 30, listed 26,702 homes destroyed with over 120,000 people homeless; of the 55,000 homes in the city sixty-five percent were said to be uninhabitable. The police chief estimated on December 7 that ten thousand residential buildings were destroyed or damaged, and repeated the estimate of sixty-five percent of all homes being no longer habitable; he put the number of homeless and bombed-out citizens at 150,000. Apparently unimpressed by these contemporary estimates, the United States Bombing Survey estimated in late 1945 that ninety-one thousand people had been rendered homeless that night, while accepting that sixty-one percent of the residential buildings had been destroyed. As Kassel's pre-raid population was 228,000, one would be forgiven for accepting the police chief's estimate rather than the American's.

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The raid on Kassel provided a classic illustration of the theories underlying the area offensive. There was a chain-reaction of dislocation, which first paralysed the city's public utilities then stopped even the undamaged factories: The city relied for electricity on the city power station and on the Losse power station; the former was

wrecked, the latter halted by destruction of its coal-conveyer; the city's low-tension grid was also destroyed. With the loss of only three gas-holders the undamaged gas works was not in itself unserviceable and the gas mains were not beyond repair. But without electricity to drive the gas-works machinery, the whole Kassel industrial area was deprived of both gas and power supplies. Although the five water pumping stations were undamaged, without electricity they too were paralysed. Without gas, water, or power supplies Kassel's industry was crippled.

The physical damage to the factories was considerable: nine principal factories, including the Fieseler aircraft plant now manufacturing the Fi. 103 flying bomb in Kassel-Waldau, were seriously damaged; the dilapidations to the three Henschel locomotive and tank plants amounted to forty-two million Reichsmarks.[3] Speer, the German armaments minister stated at his July 1945 interrogation that although the tank assembly plants had already been slowed down by shortages in components caused by bombing raids on other cities, the October 1943 raid reduced production of the formidable new Tiger tanks from 100–150 monthly to only fifty or sixty.

Although a fire-storm like that in Hamburg had broken out in Kassel, the death-roll in this air raid, of certainly less than eight thousand, was comparatively low. As usual, it had taken several months to arrive at a final figure. The preliminary report of November 30 cited an interim figure of 5,599, of which 3,782 had been identified; by the time of the Police President's report six days later, the figure had risen to 5,830, of which 4,012 were identifiable. At the end of October 1944 the director of the Henschel works reported that the total death-roll in Kassel was near eight thousand. Once again the United States Strategic Bombing Survey was not satisfied with these official figures and adopted a lower figure of 5,248. The Germans, it should be added, kept records of all air raid losses with meticulous care – even those of livestock: on the night of the Kassel raid, for example, the city also mourned the deaths of '108 horses, sixty-eight pigs, twenty-six cows, eight dogs, six goats, three calves, and one sheep' as well as numerous domestic pets either killed or put down.

In Hamburg the death-roll had approached 43,000 and probably more; the question arises, How did Kassel escape this fate? In the first instance, the city was smaller than Hamburg. The answer also lay in the extended measures of air raid precautions

taken in the city. Since the National Socialists' election victory in 1933 they had pioneered a thorough slum clearance programme and with remarkable foresight the city authorities had endeavoured to leave the spaces thus cleared free as escape routes for the civilian population in the event of a major city fire; this was even before the war had begun. The escape routes thus cleared and in some cases opened up by the demolition of quite modern streets were clearly indicated by arrows, and the populace was drilled in mass evacuation by repeated exercises under realistically simulated air raid conditions.

One positive consequence of the flood-waters which had reached Kassel after the breaching of the Eder dam by No 617 Squadron on the night of May 16–17, 1943 as well as of the American daylight raids on Kassel on July 28 and 30 had been a large-scale evacuation which had left only twenty-five thousand indispensable residents in the city centre. For those unable to reach private shelters, a concrete bunker housing more than a thousand people had been erected at the St Charles hospital; in fact, during the fire-storm of October 22 this bunker had to be evacuated when the fires outside consumed so much oxygen that its inhabitants were in danger of asphyxiation. In spite of the total destruction of five hospitals and serious damage to six more including a maternity-home, there was not one casualty among either patients or staff: the immovable sick had been permanently housed in underground tunnels, shelters, and bunkers, and the ambulatory patients were invariably led to safety as soon as the Air Danger 25 alert was privately signalled to hospitals from the civil defence headquarters.

Like Hamburg, Kassel had been provided with an extensive independent fire-hydrant system and the roofing timbers had been chemically fire-proofed; this was undoubtedly a factor in preventing the spread of the fire-storm. In addition all householders had been required by the hastily passed Luftschutzgesetz – Air Raid Precautions Act – of August 31, 1943 to provide grappling-hooks, ropes, ladders, first-aid chests, beaters, fire-buckets, water-tubs, sand-boxes, shovels, paper sand-bags, spades, and sledges-hammers or axes and these were all to prove their worth on the night of October 22–23.[4] Again with great foresight the dumps of sand had been located

ready for laying causeways of sand across roads: the asphalt was expected to melt in the heat.

Since the Battle of Hamburg, conferences had been held on every level between the city's Nazi Party and civil defence leaders. Everybody had been reminded that their primary duty was to organise the timely evacuation and rescue of people trapped in air raid shelters. This had proved a weak spot in the Hamburg defences: many elderly bunker wardens had lost their nerve when they found themselves in the midst of a fire-storm. In accordance with regulations, all Kassel cinemas had to be closed each night by 7:30 p.m., and it was the practice to halt the State Theatre performances invariably once the Air Danger 20 alert had been given. Thus although on the night of the fire-storm every cinema and theatre in Kassel without exception had been totally destroyed, the loss of life in them was small. Rescue workers recovered 459 people alive from the ruins, the last person being extricated alive on October 27, five days after the raid.

There was one unusual, even startling feature about the eight thousand victims of the raid: As in Hamburg, a total of seventy percent had been asphyxiated, the greater part of them by carbon-monoxide fumes. Fifteen percent had met violent deaths. The remainder could not be analysed, being completely carbonised. A particular hindrance to recovery work was that the corpses recovered from the basements were often bloated by the heat and humidity and their serous limbs were falling apart. The removal of the air raid victims was effected in forty-five covered lorries operating under the orders of six police officers with iron nerves and numbers of de-contamination troops clad in special gas-attack denims. Since there could be no question of using individual coffins because of the danger of typhus and other epidemics the victims were buried in six cemeteries, in communal graves dug by excavators. To begin with, the cadavers were buried by Italian prisoners of war in a single layer; later, owing to pressure on space, the mass-graves were dug twelve inches deeper, so that the bodies could be interred in two layers. Doctors worked around the clock at each cemetery determining the cause of death of every victim. Every day at six P.M. a senior civil defence doctor reported the numbers of buried and unburied casualties at each cemetery, and the numbers of corpses still waiting on the open streets to be

transported to the cemeteries. Sixteen corpse tally-men were placed at this doctor's disposal by the medical arm of the S.H.D.

The city authorities organised a Missing Persons Bureau, and this employed within a few days 150 to 200 staff. The police chief expressed concern in his report at the numbers killed by asphyxiation, although for the most part they had suffered a peaceful death, 'slipping into unconsciousness and finally succumbing without a struggle to death.' This was, he suggested, the inevitable consequence of the ethos which had been dinned into the public during the first three years of the war – that the safest place in an air raid was in an air-raid shelter. Only since the Battle of Hamburg had attempts been made to reverse this advice. Many of the victims had probably had every intention of escaping from their shelters, but had missed the right moment for this undertaking; the correct moment, during the Kassel raid, would have been some forty minutes after the start of the attack when the Inner City was still barely passable and the fire-storm was still just emerging, the police chief explained, adding: 'It is easy the understand how many people, especially the elderly folk and the women and children could not pluck up the courage to desert their shelters at a moment when the bombardment was still in progress.' In addition to that, although the last bombs had been dropped eighty-five minutes after zero hour, the continued explosion of delayed action bombs had, as was intended by Bomber Command, further intimidated this section of the population.

The police chief's conclusion was simple: 'All this testifies to the urgency of convincing people better than hitherto of the vital need to evacuate shelters and bunkers even while major conflagrations are still raging, if they are in the danger area. This is not the place for misgivings that by depicting too graphically the terrors of the fire-storm we may demoralise the civilian population.'

This view differed markedly from the policy of Reich Propaganda Minister Dr Goebbels. A few days after his funeral oration at Wuppertal-Barmen in June he had privately declared: 'If I could hermetically seal off the Ruhr, if there were no such things as letters or telephones, then I would not allow a word to be published about the air offensive. Not a word.'

For many Kassel citizens therefore, as for the citizens of Darmstadt, Brunswick and finally Dresden, the first experience they gained of fire-storms and of conflagrations so large that, as in the case Kassel, three hundred fire-brigade teams could not contain them, was when the bombs began to fall and the hurricanes of fire began to howl.

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As the winter of 1943 approached, the forces aligned against Bomber Command were not entirely those under the command of Adolf Galland and Hajo Hermann; at the same time, a controversy about the ethical issues involved in night area bombing was mounting both within and without the British government.

In public the government's statements had been designed to assuage suspicious minds. When the B.B.C. reported in May 1942 that numerous workers' dwellings had been successfully destroyed during attacks on Rostock, a Member of Parliament for the Independent Labour Party had asked the Secretary of State for Air whether the Royal Air Force had been instructed 'to impede and disorganise the German effort by the destruction of workmen's dwellings?' Although this was some weeks after the acceptance of Professor Lindemann's minute on area bombing, and although ten weeks had passed since Bomber Command had been instructed to aim at the built-up areas, 'not for instance the dockyards or aircraft factories where these are mentioned', Sir Archibald Sinclair still felt justified in replying smoothly that 'no instruction has been given to destroy dwelling houses rather than armament factories'.

Similarly, when Mr Richard Stokes, Labour M.P. for Ipswich and another veteran campaigner against the bombing of enemy civilians, asked on March 31, 1943, at the height of the Battle of the Ruhr, whether British airmen had been instructed to 'engage in area bombing rather than limit their attention to purely military targets,' Sinclair again dismissed the suggestion with an airy assurance that 'the targets of Bomber Command are always military'. He must have been as aware by this time as any of the thousands of Bomber Command personnel of the exact siting of the pencilled crosses on the aircrews' target maps; but, as he almost guiltily explained in

October 1943, it was only thus that he could satisfy the inquiries of the Archbishop of Canterbury, the Moderator of the Church of Scotland, and other significant religious leaders who, on learning the truth and condemning the area offensive could undoubtedly impair the morale of the bomber crews, and hence their bombing efficiency.[5]

This explanation satisfied the Chief of the Air Staff, but not Sir Arthur Harris, or apparently Sir Robert Saundby, both inveterate opponents of such hypocrisy and firm believers in the propriety of the area offensive; Harris pointed out that the effect on his bomber crews of the continued Ministerial denials could be just as ill: the airmen might form the impression that they were being asked to perform deeds which the Air Ministry was ashamed to admit. Whether or not this prolonged air offensive against civilians in Germany was immoral, Harris never feared to proclaim both his intentions and his methods to the world, frequently to the embarrassment of the Air Ministry, as when he declared in November 1943 that his ill-fated Battle of Berlin would continue 'until the heart of National Socialist Germany cease to beat.'

Into this deep religious and moralistic argument stepped Sir Arthur Harris' R.A.F. chaplain at High Wycombe, Canon L J Collins – a relative by marriage to Harris who had been appointed to the chaplaincy at Headquarters, Bomber Command in September 1941 and had organised an actively attended Christian Fellowship group there. As this closed controversy was nearing its climax, Collins felt called upon to organise under the auspices of this group a series of political lectures on moral subjects for the senior Bomber Command officers. One of the first lectures, held in the Command's air staff conference room, was at Collins' own suggestion delivered by Stafford Cripps, then Minister of Aircraft Production but a convinced pacifist. Sir Arthur Harris refused to attend personally, and appointed his able deputy commander-in-chief, Saundby, to receive the guest and chair the meeting.

Cripps took as the unfortunate text for his after-dinner lecture, attended by some hundred senior officers and men, the words 'Is God my Co-Pilot?', eloquently pressing the argument that those responsible, the government as well as Bomber Command, should always be sure before sending a bombing mission to Germany that it really was essential for military purposes. 'Even when you are engaged in acts of

wickedness,' he insisted, 'God is always looking over your shoulder.' For a leading politician in the midst of one of the heaviest air offensives this implicit condemnation of the Command's methods was remarkable; but for the Minister of Aircraft Production to adopt such a partisan view was more than some officers present were prepared to tolerate.

A lively discussion ensued. A Wing Commander asked whether they were to assume from Cripps' lecture that he had little faith in Sir Arthur Harris' bombing policies; Cripps treated him, as Saundby recalls, as a barrister would treat a hostile witness. The meeting developed into a verbal brawl. Another officer queried whether Cripps' evident lack of sympathy for their air offensive was the explanation why their Command had experienced inordinate delays in dealings with his Ministry.

Before Cripps could reply, the superior planning of bomber Command once again outmanœuvred the 'enemy'. Sir Robert Saundby depressed a hidden bell-push and at once a meteorological officer appeared, flourishing the latest 'met. report' which forecast, he said, 'severe fog' in Gloucestershire, to which the Minister had to repair that same night; suspecting nothing, the Minister of Aircraft Production hastened for home. In fact it was Corona tactics, being used against an enemy closer at home. There must have been many officers present that night who were well aware of Corona; it was the credit of the Command that none of them betrayed the secret by premature hilarity.

Sir Arthur Harris was naturally upset by the scene which had occurred; later on he tried to rectify the harm he considered Cripps to have caused by inviting down his Personal Adviser, T D Weldon, a tutor in Moral Philosophy at Magdalen College Oxford, to lecture on 'The Ethics of Bombing' to his senior officers. This lecture was almost as obscure as that of Cripps, lightened only by the innocent inquiry at the end by Canon Collins whether he had mistakenly assumed the title of his lecture to be 'The Bombing of Ethics'.[6]

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The exchanges in public were by the end of 1943 hardly less lively, if less enlightening than those behind the barbed wire and concrete at Bomber Command HQ. On

December 1, Richard Stokes made his last attempt until 1945, after the Dresden tragedy, to elicit an admission by Sinclair that the Churchill government had in fact adopted a policy of area bombing; he asked whether in fact the objectives of the night bombers had 'been changed to the bombing of towns and wide areas in which military targets are situated?' With accomplished dexterity, Sir Archibald again sidestepped the issue and, referring to his reply of March 31, 1943 assured him that there had been 'no change of policy.'

Bomber Command's policy had indeed not changed. Dissatisfied with the minister's obscure reply, Stokes persisted and demanded to know whether it would not now be true to say that 'probably the minimum area of a target is now sixteen square miles?' With more sarcasm than objectivity the Air Minister replied that his hon. Friend could not have listened to his answer: 'I said there had been no change in policy'.

When Mr. Stokes, with remarkable tenacity, demanded to know the area in square miles in which the 350 blockbusters recently dropped on Berlin had landed, he was informed that the question, predictably, could not be answered without giving useful information to the enemy.

MR STOKES: Would not the proper answer be that the Government dare not give it?

SIR A SINCLAIR: No, Sir. Berlin is the centre of twelve strategic railways; it is the second largest port in Europe; it is connected with the whole canal system of Germany; and in that city are the A.E.G., Siemens, Daimler-Benz, Focke-Wulf, Heinkel and Dornier establishments; and if I were allowed to choose only one target in Germany, the target I should choose would be Berlin.

MR STOKES: Does not my right hon. Friend admit by his answer that the Government are now resorting to indiscriminate bombing, including residential areas?

SIR A SINCLAIR: The hon. gentleman is incorrigible. I have mentioned a series of vitally important military objectives.

Mr. Emanuel Shinwell interjected that he wished to applaud the efforts of H.M. Government to bring the war to a speedy conclusion, and the view that any means which would hasten the end of the war were morally acceptable appears to have prevailed for the rest of the Debate. Even when the Church, in the person of Dr Bell, Bishop of Chichester, did in early February 1944 protest vigorously about the air offensive—he had learned of the horrors of Hamburg and the other great cities from neutral sources while in Sweden—the national newspapers were enjoined to deride and ridicule this lonely voice. This contemptuous deception of the elected representatives of the people, this deliberate blinding of the eyes of the Church, these strictures on the voice of the national press—these were all the ugly manifestations of the total power necessitated by total war.

[1] Information from Air Vice-Marshal E B Addison to the author; and from Sir Robert Saundby and Mrs Barbara Lodge, the WAAF officer referred to in Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iv, p.23.

[2] For the planning and execution of this attack see ibid., vol.ii, p.161.

[3] SS Obergruppenführer Fürst Josias von Waldeck, 'Erfahrungsbericht zum Luftangriff vom 22.10.1943 auf den LO 1.Ordnung Kassel,' Dec 7, 1943, in the author's archives.

[4] United States Strategic Bombing Survey report, 'Fire Raids on German Cities.'

[5] Director R A Fleischer, director of the Henschel works, report on air raid damage Oct 29, 1943 (author's archives.)

[6] 'Luftschutzgesetz' gazetted in *Reichsgesetzblatt*, 1943, I, p.506.

[7] In fact so many people dies of poisoning, and their bodies turned such brilliant colours, that it was at first assumed that the RAF had dropped poison gas bombs for the first time, and steps were taken for suitable retaliation. Post-mortem examinations by German doctors refuted this charge, and the air offensive was spared this hateful new development.

[8] Wilfred von Oven, *Mit Goebbels bis zum Ende*, Buenos Aires, diary entry for Jun 28, 1943.

[9] Sinclair to Portal, Oct 1943, in Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iii, p.116.

[10] Information from Sir Robert Saundby and Canon L J Collins to the author.

[11] Hansard, *House of Commons Debates*, vol.395, col.338.

The Sabre and the Bludgeon

THE SUMMER OF 1944 provided a further exposition of the theory of the area attack, this time by the German air force. In June 1944, the V-weapon of fensive against London began. 'Essentially indiscriminate,' as Mr Churchill angrily termed the V.1 offensive, it could be compared with the nightly nuisance raids by the Pathfinders' Light Night Striking Force Mosquitoes on Berlin.

The effect of these V-weapons, small though they were, was almost as immediate as it was unscheduled. While on the one hand they produced a grave rift between the western allies – the British prime minister strenuously advocating the use of gas bombs on German targets as a retaliation[1] – on the other they indirectly weakened the bombing assault on French railway targets which was a vital component of the invasion operations in Normandy: forty percent of Britain's thousand-pound bomb production was vested in factories in the London area; this slumped when the V-weapon assault began, as the sirens sounded and the delays in production increased. From May 1944 onwards large numbers of these thousand-pounders had been required in the pre-invasion attacks on railway targets recommended by Professor Zuckerman, but now there were insufficient stocks of weapons available to continue the attacks either on V-weapon launching sites or on the German cities, for which latter bomb loads of a more and more explosive composition were required.

The vicious circle was thus complete. It was with relief therefore that Sir Arthur Harris received the embargo on further area attacks on German cities which accompanied the transfer of authority over his Command's activities temporarily to General Dwight D Eisenhower's headquarters, known as S.H.A.E.F. Faced with the crippling losses inflicted by the Luftwaffe on his Command during the winter's Battle of Berlin, culminating on the night of the March 30–31, 1944 with ninety-five of the force of 795 bombers failing to return from an abortive attack on Nuremberg, Harris

readily postponed the provisional date that he had promised for Germany's capitulation – April 1, 1944 – indefinitely.

During the summer months of 1944 Bomber Command lacked the logistics to mount an attack on Germany comparable with those of 1943.

When in July 1944 the prime minister, smarting under the V-weapon assault, urged Bomber Command against the wishes of General Eisenhower to saturate a single German city – in this case Stuttgart – with a succession of heavy raids, the reprisal went off at half-cock: by the time of the third and final R.A.F. raid, all of which were marked by the Pathfinder Group No 8, some of No 3 Groups' squadrons were employing bombs earmarked for scrapping before 1940, charged with World War 1 explosives or the obsolete Amatol 65. The bulk of the explosive dropped in these three raids on Stuttgart consisted of small General Purpose bombs, whose worth had already been disproved by Professor Zuckerman three years previously. The only innovation was the introduction of a large number of J-bombs, thirty-pound gasoline-and-phosphorus filled bombs, designed to throw a thirty-foot jet of liquid fire.

As an attempt at reproducing the Hamburg catastrophe the Stuttgart series was a total failure. The city presented a notoriously indeterminate H_2S image, surrounded as it was by a bowl of low-lying hills. The timing was poor, the concentration weak, the Pathfinders' marking hazy; the only significant success was during the attack of July 24–25, 1944, when the Observer Corps operation room was hit, killing eight officers and forty Luftwaffe girls. The failure of the first attack, delivered by 614 bombers, was reflected in the low death-roll: the police chief reported a hundred dead, two hundred missing, and some ten thousand homeless, in an attack lasting thirty-five minutes.[2] The other two attacks did not fare much better.[3]

On one night barely six weeks later, however, on September 12, 1944, a force of only 214 R.A.F. Lancasters was able to deliver such a concentrated raid, under much less auspicious conditions, that in the thirty-one minutes after 10:59 P.M. the nucleus of the city was 'completely wiped out', 971 people were killed and 1,600 were injured. The difference was attributable to two factors; firstly, the first three attacks were Pathfinder-led raids executed during the embargo on high explosive wastage

on German cities; and secondly, the last attack was delivered by No 5 Bomber Group, marking by its own distinctive low-level technique.

The success of this September raid as an area attack – No 5 Group's 230 sorties had achieved rather more than had the 1,662 sorties of the whole Command in the July series against the same city – was a grim augury for the remainder of the air offensive against the German cities.

No 5 Group's speciality of conspicuous and accurate visual marking or targets from low level was contrary to all the doctrines in which the Pathfinder Commander Donald Bennett believed. He had objected in the spring of 1944 that low-level marking was impracticable. When a plan to 'dive-mark' Berlin in this way was being discussed he protested that it was virtually impossible to map-read over densely built-up areas at low level. Angered by Bennett's opposition to change, Sir Arthur Harris had taken away the Pathfinders' crack Lancaster squadrons No 93 and No 97 and given them together with No 627 (Mosquito) Squadron to Air Vice-marshal Ralph Cochrane, the commander-in-chief of No 5 Group, with effect from April 6. All three squadrons were to discharge cardinal duties in the execution of the first of the three raids on Dresden in 1945.

All three squadrons had made their debut as a No 5 Group force in the first low-level visual marking attack on a German city on the night of April 24–25, 1944. The target this time had been Munich, the zero hour 1:45 A.M.[4] The feint towards southern France appears to have failed to deceive the defences. The bomber formations were plotted by the Observer Corps entering the Continental airspace over the Somme estuary at 11:55 P.M., the Increased Alert was signalled at 12:31 A.M., and the Air Danger 28 stage was reached four minutes later. The city's population had a full hour to take cover, and casualties were low. Munich's flak batteries opened fire as early as 1:25 A.M., with zero hour still twenty minutes away: presumably they were firing at the eleven No 627 Squadron Mosquitoes dropping Window in an advance of the main marker force.

While the main force of 260 Lancasters dog-legged its way across France towards southern Germany, and a full scale diversionary attack on Karlsruhe was decoying the bulk of the fighter force, Group Captain Leonard Cheshire executed a coura-

geous low-level dive across the heavily-defended Munich marshalling yard and dropped his red marker bomb in the heart of the main railroad station some four minutes before zero hour. Three other Mosquitoes repeated the marking at the same time, guided by his voice over VHF radio: this 'master bomber' technique was something of an innovation to the Command – the Germans learned to call the 'master bomber' the *Zeremonienmeister*, or master of ceremonies. The main force bombing began one minute early, and ended twenty-nine minutes later, 663 tons of incendiaries and 490 tons of high explosives having been dropped, of which no less than ninety percent was estimated as having hit the target.

The next day at ten p.m. the police provisionally placed the casualties in Munich at thirty dead and six missing – later corrected to 136, still a remarkably low figure; but the central station, the eastern station, the Arnulf-Strasse marshalling yards, the Central Post Office, and the Laim Station were reported as very badly damaged.[5] The lesson was clear: bombing raids at great range could be highly successful, given a closely controlled attack with the main force bombers aiming at accurately placed target indicators.

The idea of using a Master Bomber over the target to direct bomber crews and to encourage them had first been mooted by Air Vice-marshal Bennett on December 2, 1942 when he sent Squadron Leader Pat Daniels, one of his best officers, to lead an attack on Frankfurt. Daniels had however only standard radio equipment to communicate with the main force. The weather on that occasion had been poor and Daniels could barely make himself heard above the atmospherics; all crews had been briefed to listen out when over the target area, but many reported in their post-raid interrogations that they had heard only 'muttering' over the target.[6] No bombs were recorded as falling anywhere within Frankfurt's city boundaries that night; Darmstadt, however, seventeen miles to the south, the recorded the deaths of four citizens in the heaviest raid of the year.

This Master Bomber experiment was unauthorised and Sir Arthur Harris ordered Bennett not to repeat it. When, however, Air Vice-marshal Cochrane, the commander-in-chief of No 5 Group, mounted the raid on the Ruhr dams six months later Harris raised no objections to the use of VHF radio equipment for communication.

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The attack delivered by R.A.F. Bomber Command's No 5 Group on the Baltic port of Königsberg on August 29, 1944 was to lay the foundation for the fire-storm raids on Darmstadt, Brunswick, Heilbronn, and finally Dresden.[7] This bomber group now operated largely as an independent force, with its own pathfinder squadrons, its own meteorological flights, its own post-raid reconnaissance aircraft; perhaps most important of all, the group flew an all-Lancaster force of bombers. The rest of the Command referred to No 5 Group jealously as the 'Lincolnshire Poachers.'

For the attack on Königsberg No 5 Group tried out a new target-marking and bombing technique was developed. After two pathfinder Lancasters loaded with red target indicators had identified and marked the aiming point, a distinctive railway yard in the southern city, the bombing force, comprising only 189 Lancasters, approached the aiming point on three different bearings. Although bombers were instructed to aim from the same single marking point, they were assigned three different angles of approach angles and delays for overshoot which resulted in effect in three different aiming points for the cost of only one successful marking attack; this was no small consideration when the target was as highly defended as Königsberg. A further advantage was that the marking point could lie to the windward of the area of attack and thus avoid being obscured by smoke or swamped by dazzling incendiary fires.

The resulting raid was disastrous for the ancient city – home and burial place of the philosopher Immanuel Kant. Zero hour was at seven minutes past one A.M. on August 30 but it took twenty minutes before the Master Bomber – on this occasion Wing Commander J Woodroffe – was satisfied with the marking. In spite of unpredicted low cloud hanging over the target area, the final markers were both placed within four hundred yards of the marking point in the railway yards. Woodroffe then called in the rest of No 5 Group to attack. Although the bomb load which each Lancaster could carry was small in view of the eleven hours and twenty minutes duration of the flight, of the 480 tons of bombs dropped, 345 tons were fire-bombs of the small and particularly potent four-pound thermite type.[8] The Master Bomb-

er's instructions over the VHF were clear and concise, and by 1:52 A.M. when the last bomb fell 435 acres of a total built-up area of 824 acres had been destroyed: 134,000 people were homeless and twenty-one percent of the industrial buildings had been damaged.

Bit by bit Harris – by now affectionately dubbed 'Butcher' Harris by his bomber crews – was perfecting his weapon. When the time came two weeks later, on September 11, 1944, for No 5 group to mount an attack on Darmstadt, he refined the technique of 'offset bombing' still further.[9] The city was a dif[5]cult target to attack as the industrial areas were scattered around the periphery of a sprawling central residential and commercial zone; scattering bombs around a central aiming-point and hoping – as was standard Pathfinder Group practice – that collateral damage from the overspill would affect the industrial suburbs would have dissipated the force's effort to a degree unacceptable with such a small force of bombers. Darmstadt was thus a target well suited to the 'line attack' developed by Air Vice-marshal Cochrane: in the western outskirts of the town was a large and prominent rectangular Cavalry Exercise Ground; built on a chalky subsoil, it emerged conspicuously white on the reconnaissance photographs. It was this parade ground which would serve as the marking point for the attack. No 627 Squadron, whose motto was 'At First Sight' and who had persistently distinguished themselves by their bold low-level visual marking operations since Munich, provided fourteen of the black painted, wooden-hulled Mosquito bombers both for the visual marking and for dive bombing attacks on individual outlying factories like the IG Farben plant. Wing Commander Woodroffe was once again chosen as Master Bomber.

At 10:25 P.M. the sirens sounded the public air raid warning in Darmstadt. The Drahtfunk (cable radio) warning service signalled: 'Heavy enemy bomber formation approaching from Oppenheim-East and Heidelberg-North. Acute danger for Darmstadt.' At 11:25 P.M. sirens sounded the Fliegeralarm – full alarm. Twenty minutes later the first bombs were already falling. The fire-watching posts reported that there appeared to be no definite centre of the attack. They were correct. The bombing force, of 240 Lancasters this time, had been divided and briefed to approach the clearly marked parade ground on two different bearings, and each squadron was

assigned a different overshoot from the marking point. The intended result was that two five-mile wide bomb-lanes would rip eastwards across the city, taking out the whole of the city's administrative section and its residential areas. Altogether 234 Lancasters attacked dropping 872 tons of bombs within forty minutes, including 286,000 thermite fire bombs and nearly two hundred four-thousand pound block-busters. Although the left hand bomb-lane went partially astray the operation inflicted terrible damage on Darmstadt. Within an hour, Germany's third fire-storm began.

Once again the police chief's post-raid report provides the best documentary description of the attack: he said that this raid was distinguished from its predecessors by the massed and concentrated bombing. The fire-storm which emerged after about an hour engulfed the entire inner city, igniting even buildings which had been only slightly damaged by blast. Immediate rescue operations were out of the question, as the streets and squares were inaccessible. Fire-brigades trying to penetrate to the city centre were forced back by the fierce heat. The fire-proofing of roof timbers with slaked lime, which had prevented the spread of the fire-storm in Kassel, proved worthless in Darmstadt where it was only forty percent complete. The colossal blast and suction waves had smashed doors and windows everywhere, and thus the fires had free access to every floor; thus buildings were not only gutted from the roof downwards but burnt out from the ground floor up as well.

By about two A.M. the 'fire-typhoon' raging in the streets exceeded hurricane-strengths force ten to twelve, reported the Darmstadt police chief; any kind of movement in the open was out of the question;. The typhoon subsided only slowly toward four A.M. In consequence, those people luckless enough to be caught in this area were unable to save themselves. On the railway sidings to the south of the town centre a munitions train was slowly blowing itself sky-high, and the series of explosions fatefully discouraged people from abandoning their shelters while there was still time, since they believed that the attack was still under way. The ⁵rst rescue teams from outlying towns and villages reached the city soon after and civil defence units poured into Darmstadt between four and six A.M.

For the first four days after the fire-storm, in addition to local *S.H.D.* troops – the fire-fighting and medical services amounting to some 450 men – and the *Technische*

Nothilfe Emergency Technical Aid troops, some five thousand men were engaged in rescue operations. As the last survivors were found, this force was cut back to three hundred.

The whole inner city of Darmstadt was destroyed by this attack. The degree of devastation reached seventy-eight percent; even if the less damaged suburbs of Arheilgen and Eberstadt are included, the destruction still totalled 52·4 percent. The British Bombing Survey, perhaps more objectively than their American counterparts, estimated from photographs that sixty-nine percent of the total built-up area was destroyed, or 516 acres of a total of 745. In a city with 115,200 inhabitants, 21,487 homes had been destroyed, rendering seventy thousand homeless. In the Old City it proved easier to list those buildings which had escaped destruction than those which had been destroyed: the prison, which had actually been provided with a blue-lamp to 'spare it from air raids'; the 'Crown' tavern, a butcher's shop next to it, an architect's house a little further away, and the rear buildings of the catholic St. Ludwig's church. As Darmstadt was only a second-degree A.R.P. zone *[L.S.-Ort 2. Ordnung]* the government had spent nothing on proper air raid bunkers, but only on less important buildings including three rescue centres and fifty-four public air-raid centres.

Darmstadt's virtually unprotected citizens accordingly suffered more severely than those in Kassel, and shortly in Brunswick. Thousands had died, in some ninety percent of the cases killed by asphyxiation or burned alive, even in the air raid shelters which had withstood the raid. The lethality of the fire-storm on the virtually shelterless Catholic parish of St Ludwig is indicated by this entry in the parish chronicle: 'Of the six thousand souls in this congregation only 120 were left in the parish after the night of the attack.'[10]

The city's police chief at first assessed the number of registered dead as five thousand five hundred, of which he described 1,800 (a proportion of 32·7 percent) as being unidentifiable because of the victims' total incineration. 'Considering the scale of this catastrophe the final death toll roll will be much higher,' he emphasised, 'especially since no fewer than 4,500 people have now been reported as missing.' He predicted that the missing total would be even higher as 'entire families with all their

members had been killed, whose disappearance will in consequence never be reported.' The figure for the death-roll in this one R.A.F. attack on Darmstadt finally rose to 12,300.[11] The post-war United States Strategic Bombing Survey, which consistently under-estimated the results of R.A.F. area bombing operations, satisfied itself with an estimate of 8,500.

For the first four days the recovery of the victims presented difficulties, as the attack had left no vehicles intact. Only with the arrival of a transport unit of the Speer Organisation was the situation alleviated. In Darmstadt the scenes so familiar to rescue troops from Hamburg and Kassel now met their eyes. The streets were strewn with naked, bloated and brightly hued corpses or charred objects some three feet long which looked like logs and had once been humans. For two days one victim lay in Sand-Strasse – nobody could be sure whether it had been a man or a woman. Taken unawares by the force of the fire-typhoon and blown over, the victim was now a completely charred corpse, bent double, resting on its hand and feet, its back arched. The corpses were so numerous that it was several days before it was removed.

People brought the corpses of relatives in small tubs or similar containers to the cemetery to bury themselves, because there were neither coffins nor grave-diggers. The problems of identification were great. One man had lost track of his sister and her infant daughter. Four weeks after the fire-storm, noticing an odour of decay rising from the ruins of his home in Elizabethen-Strasse, he cleared an entrance to the basement beneath the ruins, then remembered the existence of a wine-cellar below this basement. Here, in the entrance to the lower wine-cellar he found the skeleton of a woman, carrying in her arms a basket; in the basket was the skeleton of a baby girl. The wine-cellar itself was flooded one foot deep with greenish-yellow wine, which had escaped from bottles bursting in the heat. Beneath the surface he could make out the shapes of more corpses preserved in the weak alcohol – one of them his son, wearing a chequered shirt and with his pay-book still in his pocket. Next to him was his son's four-year-old child, and in a corner they found the master tailor who lived on the second floor, whom they recognised from the thimble which he always carried. On September 24, 1944 the Roman Catholic Bishop of Mainz

held a requiem Mass for the twelve thousand three hundred Darmstadt citizens who had lost their lives in the forty minute No 5 Group attack on the town.

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With the attack on the North Sea port of Bremerhaven on September 18–19, 1944, the No 5 Group 'line attack' was further adapted to suit the peculiarly elongated port, which extended eight miles along the eastern shores of the Weser estuary; the problem was similar to the problem of the attack on Wuppertal. The Pathfinder group would probably have relied on some degree of creep-back; the line attack of No 5 Group however offered a more certain method of destroying the whole city.

This time five imaginary 'aiming points' were bombed, but once again only one point was actually marked; the marking force this time was able to mark the chosen spot in the northern end of the city with great speed: Zero hour was to be at nine P.M., but two minutes before then the Master Bomber was already able to broadcast the instruction to the main force of Lancasters to 'come in and bomb'. Thus the bombers, which were now Window-ing at the rate of five bundles per minute, a much heavier rate than had been thought sufficient at Hamburg thirteen months previously, were not held unnecessarily orbiting over the heavily defended port area, and only two aircraft, one of them a Mosquito, were lost during the whole attack, while 208 of the 213 despatched were able to drop their 863 tons of bombs – including no fewer than 420,000 thermite bombs – in a very concentrated attack. The British Bombing Survey reported from investigations of reconnaissance photographs that of a total built-up acreage of 375 acres, 297 were totally destroyed: that represented seventy-nine percent destroyed. This was the first and last occasion on which Bomber Command had to direct its attention to the port. No 5 Group's tactics were rapidly nearing perfection.

It is perhaps surprising that these raids, which were amongst the most effective executed by the Command, rated hardly any attention in the British official histories of the strategic air offensive. The Pathfinder Force commander Air Vice-marshal Bennett would dismiss all of these raids in one sentence: 'In the rest of 1944,' he wrote in his memoirs, 'No 5 Group sometimes joined in with the rest of the Com-

mand on proper P.F.F. marking but otherwise attacked on their own a large variety of small targets, most of them comparatively undefended, such as … Darmstadt, Königsberg, Heilbronn, etc.' He also conceded that Cochrane's group 'went to' Brunswick twice. Thus Bennett dismissed three raids which had procured the deaths of over twenty-four thousand enemy civilians for the expenditure of only 670 sorties by his rivals, No 5 Group.

Although comparatively few citizens, only 561 in fact, were killed by the No 5 Group attack on Brunswick on the night of October 14–15, 1944 its analysis is highly important in the context of the raids on Dresden four months later. At Brunswick the Group first successfully put into practice its 'sector-attack', the technique finally selected for the first attack on Dresden on February 13.[12] As Air Vice-marshal Cochrane explained to his station- and flight-commanders prior to the attack, in the usual loudspeaker link-up peculiar to his Group, the intention was to saturate each square yard of the target sector with an equal weight of bombs: the fires would then break out swiftly and would be so widespread that no fire brigades would be able to master them. It was a natural progression from the 'line attack'. Instead of creating bomb lanes with two or three or five aiming lines and varying degrees of overshoot, during the Brunswick raid each of the 233 Lancasters would attack over one single marking point on a different heading and with a different timed overshoot; in this way a fan-shaped sector could be devastated evenly right across the centre of the city. The marking point was in the south of Brunswick, and the attacking force would fan out in a generally northerly direction across the city.

Zero hour for Brunswick was set at two-thirty A.M. on October 15. Once again a large part of the force was carrying the gasoline-phosphorus J-bombs, of which the Command seemed to have an inexhaustible stock. By 3:10 A.M. a medium-strength fire-storm had arisen in the area bounded by the Wool Market, Lange-Strasse, Weberstrasse. Light pieces of furniture, tables, and chairs were being sucked into the tornado; whirlwinds whipped up the dust and drove showers of sparks and burning embers before them through the streets. The fire area embraced the whole inner city, with the exception of small patches around the central station, the City Hall,

and the August Gate. It was in this area however that the city had built six big bunkers and two public air raid shelters, with about 23,000 people now trapped in them.

Once again the telephone network had been destroyed. The despatch rider service was unable to function properly. The city's fire-brigades had already gone into action in different parts of the city, and it was only toward six A.M. that sufficiently powerful fire-fighting units could be assembled to risk the dangerous and rarely attempted 'water-alley' technique which seemed the only hope of rescuing the thousands trapped in the heart of the fire-storm area. A group of high-pressure fire-hoses were fought forwards under a constant screen of water into the seat of the fire-storm; the front and sides of this 'alley' were protected from the fierce heat radiation by overlapping veils of water; obtaining sufficient water-pressure presented considerable difficulties, the pressure in the hoses had to be reinforced several times by auxiliary pumps in the hose-system and all the time both the mobile pumps and the hoses were endangered by collapsing buildings and the heat radiation.

Nevertheless, by seven A.M., four and a half hour after the raid had begun, the bunkers were reached. As the gastight doors were unbarred, the rescuers heard the sound of 'many people talking quietly but nervously under their breath.' All the shelterers were still alive. The 23,000 people were evacuated without any casualties, the people forming a human chain inside the 'water alley' to the safety outside the fire-storm zone.[13] Episodes like these were like a battle won, only these were not brave soldiers, hardened by a hundred battles, but ordinary citizens and elderly folk and invalids and infants, to whom a nightmare like this came only once in their lives.

Not every time did the rescuers win: 104 people were brought out of the air raid shelter in Schöppenstedter-Strasse but only nine of these could be revived. As so often before, although the shelter itself was undamaged, the cause of death was the familiar fire-storm hazard, asphyxiation. Nevertheless, thanks to the advanced state of its civil defence precautions and the courage of its fire-fighting teams the city of Brunswick had been able to avert a major tragedy.

During the forty-minute sector-attack No 5 Group had dropped 847 tons of bombs on the city. They had left eighty thousand people homeless of a population of 202,000; they had destroyed 655 acres out of a built-up area of 1,400 acres. They had wrecked

the city's gasworks, power station, and waterworks, as well as the telephone network, and the tram- and railways. So great was the extent of physical damage, that although only the one bomber group, No 5 Group, had taken part the city authorities estimated that over one thousand aircraft had been responsible. Four thousand five hundred firemen fought for six days to control the last fires, repeatedly being driven under cover by renewed air raid warnings; as they sheltered, fires which they had nearly extinguished blazed up again as fiercely as before. Only on October 20 were the last fire-services able to return to their home towns. As the city's history of the raids complains, 'Even those heavy industries in Brunswick which had not been badly hit in the attack of October 15 were more seriously affected than ever before by the loss of personnel, either killed or too pre-occupied with the day-to-day problems of survival to report to for work.' There can be no more eloquent support for the theory of the area attack than this; unfortunately not all area attacks were performed with such a miraculously low loss of civilian life.

Apart from this Brunswick operation, J-bombs were able to cause a major conflagration only during the December 4, 1944 attack on Heilbronn: the R.A.F. raid killed 7,027 of the town's 77,569 inhabitants, with once more many thousands of people missing and unaccounted for; the same sector attack method evolved by Air Vice-marshal Cochrane and his Base Commander, Air Commodore HV Satterley, was used, with a forked marshalling yard as the marking point. It was an ominous augury for Dresden that both the Master Bomber and his deputy, the Marker Leader on this attack, were to fulfil the same roles at Dresden.

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As a precursor of the Dresden raids the night of October 14–15, 1944 not only brought the devastating sector-attack on Brunswick. That same night the other major technique which was to sound the knell of death for Dresden four months later was demonstrated in the triple-blow on Duisburg delivered by a total of 2,068 bomber sorties.[14] The first blow had been delivered in broad daylight during the afternoon by more than one thousand bombers; during the midnight hours the whole force, apart from No 5 Group which was attacking Brunswick, returned to the Ruhr port and

executed a crushing double blow, the two halves separated by a few hours so that the German night fighters would be grounded and refuelling by the time of the second attack. The raids killed 1,521 Germans in Duisburg, with a further 746 reported missing; among the dead were 183 prisoners of war and foreign labourers.

Thus the stage had been set for the February 1945 area attacks on population centres which were to culminate in the tragedy of Dresden: the prevailing climate of public opinion, sedulously seeded by the government's official statements on bombing policy, would no longer be offended by Bomber Command attacks on this scale; Sir Arthur Harris now disposed over a long-range and independent air weapon capable of striking at targets even as distant as Dresden with great accuracy and violence; and, while No 5 Group had perfected the sabre of its sector attack, Bomber Command as a whole had fashioned the bludgeon of the triple blow.

[1] In Cabinet on Jul 6, 1944. He was inebriated at the time, according to the private diary of the Chief of Naval Staff, A B Cunningham (British Museum, Cunningham Papers).

[2] Air Commodore P Huskinson, *Vision Ahead* (London 1949).

[3] The Stuttgart Statistical Office states that in these three raids of July 24, 25, and 28, 1944 the R.A.F. killed a total of 898 and injured 1,916.

[4] For Bomber Command's operational analysis reports on these Night Operations against Stuttgart in Jul 1944 see PRO file AIR.24/287.

[5] W J Lawrence, *No 5 Bomber Group* (London 1951); further material on this raid was provided to the author by Air Chief Marshal Sir Ralph Cochrane and Group Captain G L Cheshire, VC.

[6] Der Polizeipräsident, 'Vorläufiger Abschlußbericht über den Luftangriff auf die Hauptstadt der Bewegung vom 25.4.1944' Munich, Apr 25, 1944 (in the author's archives).

[7] It did both No 8 (Pathfinder) Group and Wing Commander S P Daniels an injustice to suggest as did Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.ii, p.159, that the Master Bomber technique was 'first evolved by Wing Commander Gibson in the dams raids', or that the Peenemünde raid was 'the first occasion upon which [it] had been applied to a major attack' (by Wing Commander …).

[8] W J Lawrence, op. cit.; and Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive*

against Germany (HMSO, London, 1961) vol.iii, pp.179–180.

[9] During an unsuccessful attack on Königsberg three nights before, No 5 Group had dropped clusters of J-bombs, the gasoline-phosphorus weapons, which had proven as ineffective here as they had at Stuttgart in July and Darmstadt on Aug 25, 1944.

[10] W J Lawrence, op. cit.; and report of the Polizeipräsident, as cited in a letter of Mar 26, 1946 to the American Military Government of Darmstadt.

[11] *Die Pfarrchronik von St Ludwig in Darmstadt 1790–1945* (Darmstadt, 1957).

[12] *Statistical Yearbook of German Municipalities.* – The town's Statistical Office places the figure between 12,000 and 15,000.

[13] W J Lawrence, op. cit.; the author also relied on photographs supplied by Flight Lieutenant Steele.

[14] Rudolf Preschner, *Der Rote Hahn über Braunschweig* (Brunswick, 1955); and *Braunschweiger Tageszeitung*, Oct 16, 1944.

[15] One historical note: of the 9,708 high explosive bombs (not including the big blockbusters) which were dropped in this raid, no fewer than 1,336 failed to explode.

Part Two

THE HISTORICAL BACKGROUND

Dresden the Virgin Target

LATE IN 1944 the Allied political leaders turned their attention to a possible air attack on Dresden for the first time. In October, the Chief of the Air Staff suggested that the Soviet air force might be requested to attack the city, although it is not clear from published references to this request whether the city area itself or the nearby Ruhland synthetic oil plant was meant; current practice was to refer equally to Dresden and Ruhland, thereby according to the Saxon capital an industrial significance of which it was not entirely worthy. In spite of the subsequent representations made by the British military mission in Moscow, the Soviet air force did not follow up the recommendation.[1]

There was no mention of Dresden on the target list drawn up on November 6, 1944 by the Combined Strategic Targets Committee (C.S.T.C.)[2] The city did figure however as eighth on a list of eleven cities east of ten degrees, which the committee described on November 22 as being suitable for area attack; seven of the eleven cities were incidentally identified as 'transportation targets' – but these did not include Dresden.[3]

In spite of having appeared from time to time on draft directives since 1940, the city had not suffered its first air attack until October 1944. At 12:36 P.M. on the

seventh, some thirty American bombers had attacked the Dresden industrial area as a secondary target during an attack on the oil refinery at Ruhland.[4] By the time that the city's sirens had sounded the All Clear at 1:27 P.M. that afternoon, the western suburbs of Dresden-Friedrichstadt and Dresden Löbtau had suffered considerable damage.[5] The Nazi gauleiter of Saxony, Martin Mutschmann, reported to the Reich Chancellery in Berlin that the bombers had done 'medium to severe' damage to residential areas in the city centre between the post office square and the Wettiner railroad station, with lesser damage to two industrial plants, and none to the city's historic and cultural buildings.[6]

The air raid was a local sensation, and it is recorded that enterprising school-children cornered all stocks of bomb fragments to sell as souvenirs, while coach-owners ran special excursions to the blitzed streets; nothing like this had ever happened to Dresden before. There were 435 fatalities, mostly workers including French and Belgian labourers in the small factories of Seidel & Naumann and Hartwig & Vogel. A*rbeitskommandos* – labour details – of Allied prisoners working in the railway yards took many casualties; a number of Americans in one squad was killed, and other prisoners of war were drafted to take their places. Several previously idle *Kommandos* of prisoners were put to work on salvage operations in this area.

It all seemed very unfortunate. The local inhabitants unanimously agreed among themselves that the bombing was the result of some unfortunate oversight by an allied navigator, and this early blow did nothing to shatter the enormous confidence of the Dresden people that their city was not going to be attacked.

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For the hundreds of British prisoners of war in and around the city of Dresden in these weeks before the horrors of February 1945 life could not easily be bettered. The local people were familiar with the English from pre-war days, and made many friends amongst the prisoners – a large section of whom were from 1st Airborne Division contingent captured at Arnhem. 'The Germans here are the best I have ever come across,' wrote one soldier, captured at Anzio, at Christmas 1944. The Commandant is a gentleman, and we are allowed an extraordinary amount of liberty in

the town. The Feldwebel has already taken me to see the centre of the town. Unquestionably it is beautiful – I would like to see more of it.' The war seemed far away from Dresden.

Not endowed with any one capital industry like those of Essen and Hamburg, even though Dresden was of a comparable size, the city's economy had been sustained in peacetime by its theatres, museums, cultural institutions and home-industries. Even by the end of 1944 it would have been hard to single out any one plant of major importance, apart from the Ruhland oil refinery twenty-five miles to the North. According to the American O.S.S., the Office of Strategic Services, Dresden had at least 110 factories and industrial enterprises including, according to the OSS, dispersed aeroplane components factories, a poison gas factory (Chemische Fabrik Goye & Co), a 6ak- and field gun factory (Lehman), the great Zeiss-Ikon optical works, factories producing electrical and X-ray equipment (Koch & Sterzel), small arms (Seidel & Naumann), gears and differentials (Sachsenwerke) and electric gauges (Gebrüder Bassler).[7]

Only some of this was true. In the suburb of Dresden-Striesen, about three miles from the city centre, Zeiss-Ikon had an optical factory; elsewhere in the city, in Freiberger-Strasse, was Siemens-Glas AG, a factory making about fifty-thousand gas-masks per month, and in Dresden-Niedersedlitz were two Sachsenwerk plants; these two plants employed about five thousand workers on the manufacture of radar and other electronic components for sets being manufactured by A.E.G. in Berlin; in Grossenhainer-Strasse, the long road leading northwards out of Dresden-Neustadt, was the Zeiss-Ikon Goehlewerk plant. Built in 1941 of strong reinforced concrete with blast-proof windows and other civil defence measures; this factory was, by the time of the raids, employing 1,500 men on the manufacture of anti-aircraft shell-fuses for the German Navy. In Dresden-Friedrichstadt were two large factories supplying Germany with a large proportion of its cigarettes.

Distributed throughout the town area were however numbers of small firms manufacturing a large assortment of precision goods, and in some cases components for the armament industry; thus in Kesselsdorfer-Strasse the firm Glashütte – formerly a famous watch and clock factory – employed about fifty men assembling fuses in a

two-storeyed building. The Arsenal five miles to the north of the city centre, on which so much stress was placed in subsequent Air Ministry bulletins – though not it was never mentioned by Bomber Command in its weekly digest – had in fact been an arsenal in the pre-Versailles days of the First World War, but during a small-scale fire on December 26, 1916 it had been totally destroyed when a munitions train caught fire and exploded. By 1939 only the name survived. The premises had been developed into an industrial estate, with small firms manufacturing tin boxes, baby powder, toothpaste, and according to local rumour bombsights and navigation devices for aircraft. Apart from the main cigarette and optical industries, the rest of the city's commodities presented a motley spectacle: a radio cabinet works, a soap-factory in Niedersedlitz, several breweries and two small firms manufacturing components for Junkers aircraft engines and fuselages and cockpits for Messerschmitt's Augsburg plant. Research into the V.2 rocket motor injection nozzles was also carried out at the Dresden Technical University. None of these plants, it should be added by way of anticipating what will be said below, was within three miles of the city centre, or within the area marked out for R.A.F. Bomber Command's two devastating night attacks.

Dresden was not, on the other hand, by any means an open city. An American Air Force historian has established to his own satisfaction, by an exhaustive study of German and allied papers, that in addition to Dresden's significance as a major transportation centre, there was an 'entire series' of other reasons why it was a major and bona fide military target, and was 'so considered by the German military and civilian authorities.'

Dresden had become a key point in the German postal and telegraph system, and there is little doubt that the obliteration of the postal installations in the city would hamper communications with the eastern front. The permanent staff at the central post and telegraph offices in the heart of the inner city had been reinforced by some hundreds of Reich Labour Service and War Auxiliary Service personnel to cope with the increased traffic; hundreds of British prisoners had been impressed into the German postal service working in shifts in the Post Office sheds in the Rosenstrasse goods-station unloading mailbags and sorting packages.

At the time of the attack, however, the city's strategic significance was less than marginal, and it is questionable whether at that stage of the war Dresden was likely to become a second Breslau; it was not until April 14, 1945 that the Gauleiter of Saxony, Martin Mutschmann, declared Dresden formally a fortress.

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Historically, Dresden had been of some importance as a centre for the administration of military and, somewhat later, air force operations. In 1935 Dresden became the headquarters city of *Luftkreis* III, from which Colonel Bogatsch, commander of the Saxon anti-aircraft artillery defences, controlled various flak-regiments in Dresden, Gotha, Wurzen and Rudolstadt; a year later his authority was extended to include new flak-regiments formed in Weimar, Merseburg, Breslau, and Dessau, and in 1937, as German rearmament progressed apace, his Luftkreis was extended to embrace new flak-regiments being organised for the defence of Jena, Leipzig, Chemnitz, Liegnitz, Halle, Wittenberg and Bitterfeld. On November 30, 1938 the German flak artillery was re-incorporated and extended to place the flak regiments under the control of the newly organised *Luftgaukommandos* – Air Zone Commands.

Colonel Bogatsch was now given the command of Luftgau IV in Dresden, with headquarters in Dresden's General-Wever-Strasse, not far from the central station. A separate Breslau Luftgaukommando was organised, Luftgau VIII; already the importance of Dresden as a control centre was declining. With the outbreak of war in 1939, the duties of the Dresden Luftgaukommando were primarily performed by Berlin's Luftgaukommando III, with which it was united.

At the time of the air attack in 1945, the city's military significance was minimal. Since 1918 Dresden had been Headquarters of *Wehrkreis* IV, Army District Command IV, and near the defunct arsenal in the northern outskirts of the town there was an extensive complex of barracks and parade-ground installations. In the hills to the north-east S.S. troops under S.S.-Gruppenführer von Alvensleben, the chief of police, had blasted an underground command bunker into the Mordgrundbrücke rock face. While this was a target of a military nature, it was hardly one for the strategic air forces.

In recognition of the city's lack of any obvious military signi5cance, the Reich government had turned increasingly to Dresden as a haven for administrative departments and commercial offices, especially as the pressure from air attacks on Berlin became more severe during 1943. Typical of this trend was the decision to move the head office of the Berlin Grossbank to Dresden with its entire staff. But even by February 1945 there was no sign that the Reich government itself would be transferred to the city, although with the fall of Berlin such a move might have been contemplated.

Throughout the middle years of the war, Dresden's Luftgau IV had stationed strong flak defences around the city, but as the years passed without their springing into action more than twice, the authorities not unreasonably accepted that the guns were being wasted in Dresden, and dispersed them to the eastern front and the Ruhr. There thus arose the wide-spread but fatal legend of Dresden, the city that would never be bombed. On the one hand, the Dresdeners were reassured by the authorities' inaction on civil defence programmes and by their relinquishing of the city's flak defences; and on the other hand they had a pathetic confidence in the Allied governments respecting a city that housed ever increasing numbers of civilian hospitals and military dressing stations. Those people who could sent their children to Dresden for safety.[8] The Allies might bomb one of the more remote industrial suburbs, it was admitted, but never the city centre. 'The Dresden population,' the Head of the Home Office Intelligence Section would minute in 1947, 'appears to have believed that an understanding existed between ourselves and the Germans that we would spare Dresden if Oxford was not attacked.'[9]

Insidious folklore added to this false sense of security. Some people claimed to have found Allied leaflets which promised that Dresden was needed as the post-war capital of a defeated Germany; others asserted that Mr Churchill had relatives living in or near the city. That the city had not even been subjected to nuisance raids by the Light Night Striking Force appeared to lend credibility to these rumours. Tragic and even pathetic though they may appear in retrospect, the rumours were nevertheless believed not only by the 650,000 permanent residents of Dresden, but by the city's own officials; and they were impressed in turn upon the million or more evacuees

who flooded into the city after January 1945, when the Russian invasion broke in the East.

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As it is of some significance to consider whether the city was in February 1945 an undefended city within the meaning of the 1907 The Hague Convention, it will be necessary to examine the establishment and subsequent total dispersal of the city's flak batteries, before the date of the triple blow.

German flak was predominantly divided between the light and the heavy flak batteries. Light flak was provided by twenty-millimetre machine guns, and seldom scored damaging hits above seven thousand feet; with its familiar green and yellow tracer shells it was used primarily as a defence against low flying intruders. The heavy flak batteries provided a far more formidable defence and deterrent to high altitude bomber formations. It was provided by the eighty-eight-millimetre and 104-millimetre guns, of which the former were the capital weapon of all German artillery planning.

Since the summer of 1943 there had been two genres of heavy flak in the city, the standard 'eighty-eights' and the less efficient 85/88-millimetre guns known as *Flak m 39 (r)*.

The 'eighty-eights' achieved muzzle velocities in excess of four thousand feet per second. Among the standard heavy flak batteries stationed in Dresden were the 1/565th stationed in Dresden-Übigau, near to the autobahn bridge across the River Elbe; the 2/565th on the Heller parade ground near Dresden-Klotzsche airfield; the 3/565th in the hills to the south of the city, stationed to be exact in Kohlenstrasse in Dresden-Räcknitz, and later enlarged – by cannibalising the others – to a *Grossbatterie*; the 4/565th on the high ground between Rochwitz and Gönnsdorf, and finally the 5/565th in Altfranken to the west of the city.

The 85/88-millimetre pieces were captured Russian eighty-five millimetre guns which had been rebored to eighty-eight millimetre calibre for use as anti-aircraft artillery. Their bigger brother, the standard eighty-eight millimetre guns, were also serviceable an anti-tank weapons, as the British Army had been pained to discover in

June 1941 in the Western Desert; fired horizontally, the eighty-eight was capable of piercing 202-millimetre armourplate at a range of a thousand yards and more. For Dresden this dual utility was to prove fatal as the Soviet tank offensive in the east gathered momentum, and first the eighty-eight millimetre batteries, then even the inferior 85/88s were dismounted and rushed into action along the eastern front. More will be said about this in due course.

During such time as the flak was in Dresden, the Russian pieces were concentrated more toward the city centre than the heavier German guns; the 203/IV 85/88-mm battery was stationed on the Elbe embankment at Vogelwiese; the 204th was in Wölfnitz; the 217th in Radebeul; the 238th in Seidnitz; the 247th was in Rochwitz – all of them captured Russian guns. Battery 203/IV on the Elbe embankment was closest to the city centre; the battery was equipped with six of the 85/88-mm guns with radar-predicted fire-control equipment. Four of these guns were manned by day by Hitler Youth schoolboys from the city's famous Kreuzschule, together with a permanent crew of soldiers; by night the other two guns were manned by shifts of workers from the factories.[10]

Not surprisingly the Dresden flak had little chance in the early years to practise or demonstrate its potency: private records indicate that the 5/565th battery was the first to fire in anger, and then only on May 28, 1944, when the U.S.A.A.F. was attacking nearby oil installations; on August 24, 1944 the flak was able to fire again during an attack on neighbouring Freital, and again on the September 11–12 – if only a mild barrage.[11] In October 1944, however, the process of disbanding the Dresden flak was commenced: the 203rd Battery was dissolved and merged with the 217th to form a single Grossbatterie in Radebeul; only once did this new battery open fire, during the American attack on Dresden on October 7. There is a note of pathos in the recollection of one of the Hitler Youth boys, himself on duty as a radar fire-control officer, of the wild attempts of the flak to counter the attack; his own steel helmet was much to large for him, and the throat microphone he wore was too loose for his neck. 'The gun barrels were bristling in all directions when we were told to put up a barrage,' he recalled. 'The boys in our crew were all so young and weak that the Russian prisoners had to be used for loading the guns. All in all the

Dresden flak was not the elite of the Reich defence.' Fortunately, he added ironically, there was no flak left in Dresden in February 1945; had there been, he and his friends would have been immolated with the rest of the city.

During the winter of 1944–1945, with the renewed Soviet offensive on the Eastern front, and allied armour thrusting into Germany all along the western frontiers, the demand for the dispatch of Dresden's flak batteries to bolster these sagging defences became too insistent to ignore. Nor was Dresden the only city to have its defences denuded: the United States Strategic Bombing Survey's summary report pointed out that in January and February alone, some three hundred flak batteries were moved to the Eastern front to be used for anti-tank fire. By the middle of January 1945 only the concrete pads remained to mark where the 6ak guns had once stood in Dresden; only papier-mâché dummies remained on the hills outside to defend the city.

Hitler's systematic reduction of the German cities' flak and fighter defences to reinforce the eastern front can be traced from the war diary of the German air force high command (OKL) which has now been found. On February 2 Göring directed the fighter planes of Luftflotte Reich to operate only against ground targets on the eastern front, where the Russians had established their bridgeheads across the Oder, or against enemy troop concentrations on the eastern bank of the river.[12] Since the First and Second Flak Corps had already lost 512 twenty-millimetre and 575 eighty-eight millimetre flak guns since the Soviet offensive began on January 12, Hitler also ordered under the code-word 'Gneisenau Flak' the massive transfer of flak batteries from the cities to the battlefield in the east.[13] On February 3 after Hitler issued the codeword a further 123 flak batteries were transferred to the eastern front, packing the guns into anti-tank defences, line upon line of them massed along the Oder.[14] By February 12, of the 327 heavy and 110 medium and light flak batteries ordered sent to the eastern front 141 heavy and forty medium and light batteries were recorded as having arrived and forty-five heavy and twenty-four medium and light batteries were on their way.[15]

As for Dresden's gun batteries, these were dispersed throughout the length and breadth of the Reich. Battery 207/IV was transferred to Halle; others were sent to

Leipzig and Berlin. The eighty-eights were sent into action on the eastern front. Battery 4/565 was switched to the Ruhr, where it served during the almost continual air attacks up to the end of March 1945; on April 1 it was converted to an anti-tank battery and took part in the defence of Hamm, near where it was finally overrun ten days later by American infantry. Of the crew of Dresden Hitler Youth schoolboys, half were killed in this final stand; the story of the Dresden flak batteries, defending anything but the city from which their youthful crews had been impressed, is one tinged with tragedy, but with heroism.

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By the beginning of February 1945, therefore, the capital city of Saxony was within the full meaning of the relevant conventions an undefended city; in addition, as we have seen, it was devoid of industrial, strategic or military targets-in-being of the first order. Sir Arthur Harris and his American counterparts were however concerned with winning the war and not with considerations of international law.

In his own bluff, inimitable style Harris would observe years later that the only international restriction which he considered to be binding on him and his Command during the war was an agreement dating back to the Franco-Prussian War which prohibited the release of explosive objects from gas-filled dirigibles. Bomber Command, he pointed out, rigidly complied with this restriction through the Second World War.

All this is, however, trespassing seriously on chronology, and it is necessary first to observe how it came to pass that one of Germany's most treasured and beautiful cities, a city housing by then well over a million civilians and refugees, finally came to be attacked in the fourteen hours and fifteen minutes that were to commence with 10:15 P.M. on the night of February 13, 1945.

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During the first weeks of 1945, the German army headquarters learned from intelligence sources that the Russians were preparing for a new major offensive across the River Vistula, a front which had remained stable since the conclusion of the Soviet summer offensive of 1944. Massive Soviet forces, estimated to outnumber the German defenders by more than ten to one, were observed concentrating at Baranov, Pulavy and Magnusev. Several German divisions had already been withdrawn from this front and East Prussia during the winter, and transferred to Hungary and the Rhineland.

It was the responsibility of the local Gauleiters to organise mass evacuation of the civilian population from battle areas, and experience had already demonstrated that the prospects of the evacuees of reaching safety depended only on the speed with which the evacuation operation was implemented; in this respect, the Gauleiters as political leaders were at variance with themselves as Reich Defence Commissioners: The whole German civilian morale was founded on the dogma of the Final Victory, and it was dif5cult to reconcile final victory with being forced to leave ones home and possessions overnight to the enemy; some Gauleiters like Erich Koch of East Prussia had resolved this dilemma by refusing any discussion of evacuation measures in the province's battered capital Königsberg; thus when the weight of the two R.A.F Bomber Command attacks on the city in August 1944 had constrained the city's Oberpräsidium to appeal to Koch to order the evacuation of all non-combatants from the city, he was empowered to refuse, and did. He did not wish to spread alarm and despondency among the populace. On the other hand, the Gauleiters of Wartheland and Danzig/West Prussia had drawn up secret plans to deal with mass evacuation, which were to stand them in good stead.

The resulting fate of the East Prussian population who did obey the Gauleiter's embargo on evacuation was an object lesson not only to the other Gauleiters but also to the citizens of all other areas likely to be overrun by the Soviet Army. On October 16, 1944 the first mass Soviet offensive along a front of eighty-five miles had threatened the very heart of East Prussia, and sent hordes of refugees and evacuees reeling southwards; many thousands arrived in Dresden, considered to be the Reich's 'safest air-raid shelter.' Despite the exhortations and threats of Gauleiter Koch, some twenty-

five percent of the population fled East Prussia, about six hundred thousand people. The town dwellers, together with women, children and invalids from rural areas were evacuated en masse to the provinces of Saxony, Thuringia and Pomerania.

The Saxon capital, Dresden, which in 1939 had a population of 642,143, was soon swollen by one or two million refugees. The Russian offensive in East Prussia demonstrated to Nazi Party officials and citizens alike that Germans might expect short shrift from the Soviet troops if they stayed behind; the evacuees pouring into Saxony and Western Silesia brought with them harrowing eye-witness stories of atrocities committed against German civilians who had not been evacuated in time. On October 20 for example Soviet tank commanders caught up with a column of refugees streaming out of the East Prussian district of Gumbinnen and ordered their tanks to proceed straight over the refugees and their vehicles, wiping out the whole column. The Gumbinnen affair came to signalise to The Germans what awaited them in the event that their leaders did not order the evacuation of the battle zones in time.

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The sudden launching of the Soviet offensive on the Vistula on January 12, 1945 was to bring in its wake atrocities more degrading than this first Gumbinnen affair; it served to terrify the population, and inculcated an even wilder reluctance to stay near the battlefields.

On January 12 the First Ukrainian Front commanded by the ruthless Soviet Marshal Ivan S Koniev broke out of the Baranov bridgehead, and started a massive push in the direction of Silesia On the following day the First White Russian Front under the command of Soviet Marshal Zhukov broke out of the neighbouring bridgeheads at Pulavy and Magnusev; his tank columns were headed for Lodz and Kalisch. A simultaneous attack on East Prussia where the offensive had stagnated since the October onslaught, was mounted by the Third White Russian Front under Soviet Marshal Chernakovsky, with the capture of Königsberg as its aim; on January 15 the plan to detach East Prussia from the rest of the Reich was put into the operation, with the Second White Russian Front pushing toward Thorn and Elbing.

Overnight the westward movement of evacuees swelled to a flood-tide which the gauleiters could no longer stem. An exodus of five million Germans from eastern Germany had begun, an exodus that was voluntary as yet, but destined with the end of the war to yield to the most brutally enforced and greatest mass expulsion in the history of the European continent.

Inevitably the greater part of the responsibility for this sudden exodus through Saxony must lie with the gauleiters of the areas upon which the weight of the Soviet offensive fell. At the beginning of 1945 there had been some 4,700,000 German nationals – ethnically German – living in Silesia, the province to the immediate east of Saxony. Wretched columns of Allied and Russian prisoners of war tumbled westwards and southwards together with evacuated concentration camp prisoners and pitiful 'treks' of civilian refugees. The local population too needed no second bidding to leave the path of the invaders. One section fled south-westwards over the mountains into Bohemia and Moravia; a larger section trekked along the main autobahn into Saxony. The first major city there was Dresden, and beneath that city's glittering spires, whether or not they had friends there, most of the evacuees intended to stay.

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On January 15, 1945 the two Allied air commanders issued a new directive, No. 3, for the Strategic Air Forces in Europe, according first priority to attacks on the enemy petroleum industry and second priority to the destruction of enemy lines of communication, with 'particular emphasis' however on the Ruhr. [16]

On the following day the city of Dresden was for a second time the object of a minor Allied bombing attack. Part of a force of some four hundred Liberators of the Second Air Division of the U.S. Strategic Air Forces attacked the 'Dresden oil refinery and marshalling yards'.[17] The Eighth Air Force Target Summary recorded 133 effective sorties against Dresden's marshalling yards, in an attack commencing at noon: bombs fell accurately along the Hamburger-Strasse side of the Friedrichstadt marshalling yards, doing damage to some railway installations. The bombing of one unit, the 44th (Liberator) Bombardment Group, went rather wide and a target photograph shows its bomb pattern bursting in the grounds of the Friedrichstadt hospital and

among the hospital buildings. Each of the Liberators dropped eight 500-pound R.D.X. high-explosive bombs. The flak had been heavy on the way to the target, and although over Ruhland the flak was also heavy the crews bombing Dresden from 22,000 feet were surprised to experience no opposition from the city. This attack claimed 376 victims in the city, among them the first recorded British death: a British private from the second largest work-detail of prisoners of war, Norman Lea, was killed on his way to hospital. 'That is the first casualty and I hope the last,' recorded the Kommando's Man of Confidence in his diary. 'But with around 170 men from this Kommando alone working every day in the town, and with the strong possibility of a Blitz, it is by no means impossible that there will be further casualties.'[18]

While the German civilians were buried in a mass-funeral in one of the city's cemeteries the Army District Command in Dresden, in strict observance of the relevant conventions paraded the city garrison and buried the unfortunate British soldier 'with full military honours and a British and German guard of honour' at the Military Cemetery in Dresden-Albertstadt, as the Camp Leader informed the bereaved parents. In Dresden, the war was still regarded with an almost old-fashioned chivalry.

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On the same day as this minor air raid, January 16, the German Army Group A pressed for the immediate evacuation of Silesia, and between the nineteenth and the twenty-fifth the first great treks began assembling in the main town and cities of Silesia to start the long tramp west.

Unlike the mass evacuations of Hamburg, Berlin, and the Ruhr under the pressure of R.A.F. Bomber Command's night offensive – 1,500,000 citizens had been evacuated from Berlin and about two millions from the Rhine province by the end of 1944 – this was a flood-tide of humanity unleashed on the very largest scale, and within a cruelly short space of time.[19] Within seven days five million German civilians were uprooted from their ancestral homes and began streaming westwards along the roads and highways carrying their few remaining chattels in boxes and bags, and camping out in the open air night after night despite sub-zero temperatures. Just as this mass

exodus was gathering momentum, Silesia's Gauleiter Karl Hanke intervened, having observed with dismay the depletion of the labour force for his vital Silesian war factories; he ordered that women and children only were to be evacuated; everybody else was to stay at their jobs to the last.[20] This decree inflicted appalling hardships on the 'treks' of evacuees fleeing westwards, which were now deprived of all their able-bodied men; it accounts for the number of predominantly female casualties among the refugees who reached Dresden.

On January 19, Hanke ordered the evacuation of Namslau in Lower Silesia and designated Landeshut as a reception area for the townsfolk, and the Sudetenland for the rural population. On the twentieth the Soviet armour reached Kattowitz, Beuthen, Gleiwitz and Hindeburg, and in defiance of Hanke's decree a small scale evacuation by the entire German population began. On the twenty-second the first Russian units crossed the River Oder between Brieg and Ohlau, cutting all main railway lines westwards out of Breslau, Hanke's capital. Thus the only escape lay by rail along a southerly route through Ratibor and Neisse, and soon these railways were burdened with thousands of women and children fleeing to Dresden and Saxony. In most cases the industrial population stayed to the last moment; cases occurred where even as Soviet troops were fighting for possession of the collieries, German miners were still working the coal face below. Other areas were more fortunate however. Of the seven hundred thousand inhabitants of Oppeln and Glogau a timely evacuation order on January 20 allowed no fewer than six hundred thousand to escape the Russians; the remainder, who were ethnically Polish, stayed behind considering that they had little to fear from the invaders.

On January 21 the Gauleiter ordered the evacuation of Trebnitz. As soon as the evacuation decree was promulgated, the whole German population descended on every available means of transport to escape westwards, despite the bitterly cold temperatures which were to mark the first three months of 1945; being a largely rural community there were however farm carts and wagons available for these families to travel in. As the authorities believed that the Soviet armour would be halted for some time on the Oder, they at first designated reception areas for the evacuees only just to the west of the river in localities including Liegnitz, Goldberg, and Schweidnitz.

Providentially, the military commanders insisted however that these areas too close to the battlefield and they had the civilians displaced some miles further to the west. Soon after, the Russian bridged the Oder, and the fight for Saxony began afresh. It was as though fate were conspiring to ensure that by the time that the middle days of February arrived, the maximum number of refugees would be sheltering in the province's capital city.

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It was unfortunate, if foreseeable that the city was also housing a large population of Allied prisoners of war. R.A.F. Bomber Command was dependent on the International Red Cross for precise information on the location of these Allied prisoners of war; Sir Arthur Harris later denied that in the case of Dresden any such information was contained in Bomber Command's dossier on the city.[21] In fact Article 9 of the 1929 Convention on Prisoners of War had defined that prisoners of war were not be so located as to render certain points or areas immune from bombardment; the German Army had rigidly observed this article, as the Protecting Power was able to report. But especially in Central Germany where the major camps were divided into Arbeitskommandos (work-details) sometimes numbering only 150 or two hundred men or even less, each Kommando being based on or near the farm, factory or railway yard where its men were working, casualties were inevitable. It is of course questionable whether the entire residential districts of a city were the kind of 'points or areas' which the draughtsmen of the Convention had in mind in 1929 as targets for bombardment.

In Dresden the casualties among Allied prisoners of war were high during the February 1945 raid, and if statistics on them had been published at the end of the war, no doubt they would have excited comment: the British War Office would admit that the last report on the British camps in Dresden had been received from the Protecting Power, Switzerland, in January 1945; this had stated that there were sixty-seven such 'work-details' within the immediate Dresden area, under the Stalag IVa camp.[22] Added to these were seven American work-details, each considerably larger

than the British ones, reported after a visit to Dresden by a representative of the Swiss Legation in Berlin between January 15–22.[23]

The exact statistical position is however complicated by the numbers of Allied and Russian prisoners temporarily in transit through Dresden from the eastern territories. The British government published soon after the February raids on Dresden a list of Allied camps in the territories known to have been overrun by the Soviets. Of the nineteen camps listed, some are known to have been passing through the city at the time of the attack; other camps, like Stalags VIIIb and VIIIc from Oppeln and Sagan respectively, which were also evacuated through Dresden, are known to have reached the city only after the attack; Stalag VIIIb was evacuated from Oppeln on the Oder on January 26 but did not arrive until February 20, after three weeks on the march. Stalag VIIIc, with fifteen thousand Allied prisoners, was also routed through Spremberg to Dresden. The measure in which the city's population of Allied prisoners grew during February is shown by a report by the International Red Cross on a visit to Dresden's Stalag IVa on February 22 which revealed that there was by then a total of 26,620 prisoners of war interned there, including 2,207 Americans.

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On January 26, 1945 the first officially organised refugee trains from the east began to arrive in Dresden. Over a thousand Reich Work Service girls were waiting at central station to help the elderly and invalid refugees unload their baggage from the passenger trains and goods trains and find food and temporary lodgings for them; then the emptied trains were sent back to the East to pick up more refugees. Day and night the unloading , victualling and re-directing of refugees continued in Dresden, the tempo increasing until finally R.A.D.W.J. girls, Hitler Youth units, League of German Girls units, National Socialist Welfare Service *(N.S.V.)* and the Party's *Frauenschaften* (women's associations) were all engaged in refugee welfare work.[24]

At the same time many of the city's main secondary and grammar schools were shut down for conversion into military and Luftwaffe hospitals; within a few days of the Soviet invasion the Dreikönigs-, Vitzthum- and State Grammar Schools had been converted, as had the boys' secondary schools in Dresden New Town, Dresden-

Johannstadt, Dresden-Plauen, Dresden-Blasewitz and the girls' secondary schools in Dresden New Town and Dresden-Marschnerstrasse; the school children thus released were assigned to work on refugee duties in the stations. On February 1, the large-scale employment of school units at Dresden-New Town station began, the senior schoolboys being required to work all night from 7:55 P.M. until eight the following morning tending the ailing refugees who were now pouring in with every train that arrived from the east. One by one the towns, cities and provinces of the east were emptied of their German population – Glogau, Fraustadt, Guhrau, Militsch, Trebnitz, Gross-Wartenberg, Oels, Namslau, Kreuzberg, Rosenberg and the eastern areas of Oppeln and Brieg. The existing transport system was hopelessly over-burdened, but the party's welfare organisations were able to set up moderately efficient food stations at intervals along the route to Dresden to alleviate the worst distresses inflicted by hunger and bitter cold.

Soon the first uneasy fears were awakened among the Germans remaining in Breslau, the metropolitan capital of Silesia. Fortunately, the city was already under-populated, with only 527,000 inhabitants; sixty thousand non-essential civilians had already been evacuated since the autumn of 1944 when the city had been declared a Fortress. On January 21 the distant thunder of the artillery bombardment of Trebnitz had been heard in Breslau, and the authorities ordered the city's remaining invalids, women, children and elderly folk to leave for the west. As the train service was slowly grinding to a halt over one hundred thousand people therefore set out literally on foot; in the absence of the farm carts and wagons which had evacuated their more fortunate rural cousins, the industrial populace had no alternative but to walk. It would take some weeks for them to reach Saxony, where the larger part of them were heading.

Nor were civilians alone in being pulled out of Breslau, a city which was destined to become the scene of a bitter and heroic fighting until it finally succumbed on May 6, 1945; the Government, in preparing for the siege, ordered the evacuation of many of Breslau's administrative and military installation to Dresden. Breslau's Luftgaukommando had been transferred to new quarters in Dresden.[25] The complete Radio Breslau transmitting station was dismantled and transported to Dresden

with orders to reinforce the low-powered Dresden station and at the same time to convert it to the former Breslau wavelength, so as to camouflage its location; the trucks carrying the precious transmitter equipment arrived in Dresden on the afternoon of R.A.F. Bomber Command's first attack, and suffered the fate of the city.[26]

By the time that the final Russian encirclement of Breslau began, during the night of February 12–13, only two hundred thousand civilians remained in the city. The rest had escaped, most of them to Dresden. Of those Breslauers who remained, some forty thousand were to be killed during the bitter street fighting and Soviet air raids. Events in the east augured ill for Dresden and only the Allied prisoners, cut off from the general mood of confidence in the city, appear to have realised the city's vulnerability as a refugee traffic centre: 'Although Breslau is directly to the east of us,' recorded a Dresden prisoner on January 28, 'there has been no railway bombing and German traffic has been flowing quite freely. Marvellous organisation on our part or the Russians'. I don't know which!'

[1] The Oct 1944 request to the Soviet government to bomb Dresden is referred to in Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iii, p.108, and was confirmed by personal communications to the author from Major General M B Burrows, General J R Deane, and Lieutenant Colonel Brinkmann.

[2] CSTC Working Committee Transportation, 'Attack of German Transportation System,' Nov 6, 1944 (PRO file AIR.20/3228).

[3] CSTC 6th meeting, Nov 22, 1944 (PRO file AIR 40/1269).

[4] Eighth Air Force Target Summary.

[5] Professor Max Seydewitz, *Die Zerstörung und Wiederaufbau von Dresden* (Dresden, 1955).

[6] 'Bericht über die feindliche Fliegertätigkeit in der Zeit vom 7.10.1944 8 Uhr bis 9.10.1944 8 Uhr,' Berlin Document Center files, National Archives film T580, roll 884 (Author's microfilm DI–35).

[7] HQ, US Strategic Bombing Survey, report, Jul 10, 1945: 'Dresden, Germany, City Area'. – Report by OSS London, B.1799/4, Mar 3, 1945. cited in Walter F Angell Jr., 'Historical Analysis of the 14–15 February 1945 Bombings of Dresden.' (USAF Historical Division Archives).

[8] Dieter Georgi, 'The Bombings of Dresden', in *Harvard Magazine*, No.87, Mar–Apr 1985, p.58; Georgi was fifteen years old at the time he was evacuated to Dresden.

[9] McIvor (Chief of Home Office Intelligence Section) to A Nicholls, Air Historical Branch, Apr 12, 1947.

[10] Information from one of the Hitler Youth flak gunners, Götz Bergander, to the author; Bergander subsequently published his own well researched account of the raids: *Dresden im Luftkrieg* (Cologne and Vienna, 1977). – And see the U.S. Strategic Bombing Survey report of Oct 31, 1945.

[11] Most of the bombs during the Freital attack fell on the working-class housing estate of Birkigt.

[12] Kriegstagebuch OKL Führungsstab Ia (War Diary, German Air Force operations staff), Feb 2, 1945 (NA film T321, roll 10).

[13] Ibid.

[14] Ibid., Feb 3, 1945 (NA film T321, roll 10).

[15] Ibid., Feb 12, 1945 (NA film T321, roll 10).

[16] Directive No. 3, Jan 15, 1945 (PRO file AIR. 20/3218). Spaatz to Kuter, 'Comments on Strategic Directive No. 3,' (Maxwell AFB, microfilm 519.3181–1): Spaatz speculated that the only reason why the so-called 'industrial targets' were given this priority rating was to enable Bomber Command to attack them.

[17] Information from Richard Dugger, former bombardier of an aircraft of the 448th Bombardment Group, Second Air Division, to the author.

[18] See the published history of the 44th Bombardment Group.

[19] From Corporal S Gregory's 'Camp Diary of Arbeitskommando 1326, Dresden'; and his letter to the parents of private Norman Lea, Feb 5, 1945 (both in the author's archives.)

[20] My account is based largely on the official German government publication *Dokumentation der Vertreibung der Deutschen aus Ost-Mitteleuropa*, vols.i–iv, published by the German Federal Ministry of Refugees, Expellees and War Victims (Bonn, 1951); the original reports on the expulsion have now been retired to the Federal Archives (Bundesarchiv) in Koblenz, Germany.

[21] *Tragedy of Silesia, 1945–1946* (Munich, 1952), p. 53.

[22] Information from Sir Arthur Harris to the author.

[23] Information from the British War Office Records Dept. to the author.

[24] Information from Chief Archivist Sherrod East of World War II Records Division, the National Archives, Washington DC, to the author.

[25] From the diaries of former RADwJ (Reichsarbeitsdienst weiblicher Jugend) Maidenführerin Margarete Führmeister, Mannheim, supplied to the author; and information from Studienrat Hanns Voigt, Bielefeld.

[26] Information from Luftwaffe Major Victor Scheide to the author.

[27] *Aktuell* (Munich), issues Nos. 5, 6, 7, 1962.

[28] Diary of Corporal S Gregory (author's archives).

Thunderclap

THE IMPRESSIVE SPEED of the Soviet advance into Germany and the accompanying Orders of the Day heralding the fall of one eastern town after another could not have come at a more embarrassing time for the Western Allies. The long-awaited Crimea conference, on which so much was to depend for the future of post-war Europe, was thus to open with a display of Soviet might on the grandest scale; compared with the Soviet advances in East Prussia and Silesia, the Allies' achievements in Italy and the Rhineland must have seemed paltry indeed. The political leaders of the west would be hard pressed to bargain from a position of strength when the conference opened at Yalta. In the circumstances it was natural that the Allied governments should turn to their bomber weapon as a means of impressing upon the Soviet Union that the air offensive on the German 'home front' was as crushing as any mounted by Soviet armour in the east.

Military collaboration between the Soviets and the Allies had been at best only fitful ever since Hitler invaded Russia. During September and October 1944 the Allies had however begun exchanging with the Russians details of specific plans to bring the war to a rapid close.[1] On December 14 the American ambassador in Moscow, Averill Harriman, had told Marshal Stalin that General Dwight D Eisenhower, supreme commander of the Allied forces in the west, was anxious to concert his operations with the Russians; from Harriman's mention of the possible use in the Balkans of the Allied air forces based in the Mediterranean it was implicit that the main strategic air forces were also being offered for operations in support of the Soviet armies.[2]

When Stalin had failed to launch his major winter offensive during Hitler's attack in the Ardennes, the Allies had sent to Moscow Eisenhower's deputy, Marshal of the

Royal Air Force Sir Arthur Tedder, in an attempt to co-ordinate operations; Tedder met with Stalin on January 15, 1945, three days after Stalin finally began his offensive, and outlined to the Soviet dictator Allied plans to bomb German oil targets, railroads and waterways, and to prevent Hitler from transferring his forces from the western to the eastern front.[3]

Throughout that month however the weather in Europe remained as unfavourable for bombing operations as it was inhospitable for the millions of refugees fleeing westwards.

The Joint Intelligence Committee of the British War Cabinet continually re-examined the most effective employment of the Allied bomber forces. They came up with a modification of a plan previously projected under the code-name THUNDERCLAP: in July 1944 the Chiefs of Staff had discussed the possibility of making Berlin the target for a blow of 'catastrophic force' on morale, both military, political – and civilian.[4] The suggestion had been put to the prime minister and then embodied in a detailed memo submitted by Sir Charles Portal to the Chiefs of Staff on August 1. THUNDERCLAP was to last for three days and nights if weather allowed. With some justice this memo was later termed by the Official Historians the 'title-deed' of the Dresden operation. As an alternative to Berlin, Portal wrote,

> immense devastation could be produced if the entire attack was concentrated on a single big town other than Berlin and the effect would be especially great if the town was one hitherto relatively undamaged.

The Foreign Office, the Political Warfare Executive and the Ministry of Economic Warfare, with whom THUNDERCLAP had been discussed in principle, believed that such an attack might hasten an imminent victory or determine one which seemed in the balance. On the advice of the Joint Planners' Committee however the plan had been shelved until such time as the J.I.C. might consider the circumstances favourable for a reappraisal of its possibilities.

Had that time now come? Basing its judgement primarily on deciphered intercepts, on January 23, 1945 the J.I.C. had decided that about six weeks after mid-

March 1945 the German armed forces would be completely immobilised – an estimate that was to prove remarkably accurate.[5] In a further report two days later the J.I.C. presented its own appreciation of the latest Soviet offensive on the eastern front. They informed Churchill and the chiefs of staff, in a paper entitled 'Strategic Bombing in Relation to the Present Russian Offensive,' that the war could be shortened if the British and American strategic bomber forces assisted the Red Army during the next few weeks, and that they should therefore review their current bombing priorities – oil and tank production currently sharing top place. Specifically, the J.I.C. drew attention to the contraflow of German troops heading east to the Oder front and the refugee treks fleeing to the west: the committee felt that a 'heavy and sustained' bombardment of Berlin might cause a chaotic outpouring of refugees from the city which would severely disrupt the troop movements. In addition to these tactical considerations, the J.I.C. suggested – apropos western bargaining power at the forthcoming Crimea conference – that there might be a 'political value' in demonstrating to the Russians a desire to assist them 'in the best way open to us' in their current offensive.[6]

For several days Eisenhower's staff studied these recommendations.

The British Air Ministry was quicker to act on the J.I.C. report. Sir Norman Bottomley, the deputy Chief of the Air Staff, telephoned Sir Arthur Harris that same day to acquaint him with the report's recommendations and to discuss its implications. Though Harris affirmed that he regarded Berlin as already being 'on his plate' Bottomley pointed out that as the full THUNDERCLAP plan for a shattering blow on the capital was now being projected Harris would have to co-ordinate his operations with the U.S. Strategic Air Forces, and in all probably consult with the Chiefs of Staff as well. In this conversation, according to the minute sent up by Bottomley to Portal on the following day, Harris suggested supplementary attacks on Chemnitz, Leipzig, and Dresden, which, equally with Berlin, would share the task of housing evacuees from the East, and were focal points in the communications systems serving the eastern front.[7]

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There was something ironic in Sir Arthur Harris now being required to put the full strength of Bomber Command behind an area offensive again, since he had long advocated precisely that, in preference to the bombing of precision targets – what he called 'panacea' targets like oil refineries. The efforts of his Command had been largely directed since 1942 toward the bombing of cities. Late in 1944 however the success of the air offensive against the oil plants waged under the direction of S.H.A.E.F. during the summer had convinced the Air Staff that continuing this oil offensive could have a decisive effect on the war before the end of the year. Harris however had obstinately maintained the importance of continuing the area offensive, claiming that it would be impossible to operate his squadrons on the set schedule needed for destroying precision targets in uncertain winter weather conditions.

Thus, despite the top priority ordered for the oil offensive throughout the autumn of 1944, during the last three months of that year fifty-eight percent of Bomber Command's operations had still been directed against cities rather than oil targets. Harris refused to change his strategy. Writing to Portal on November 1, 1944 he had pointed out that within eighteen months his Command had virtually destroyed forty-five of Germany's sixty biggest cities, and he suggested they now deal with those which were still standing, 'Magdeburg, Halle, Leipzig, Dresden, Chemnitz, Breslau, Nuremberg, Munich, Coblenz and Karlsruhe, and the further destruction of Berlin and Hanover.' (There was nothing unusual about the mention of Dresden, apart from the city's extreme range from the R.A.F. airfields even now. Along with every major population centre in Europe Dresden had long been included in Bomber Command's 'Bomber's Bædeker.' The target map finally used for the first attack on Dresden had been printed as early as November 1943.)

The Air Staff had refused however to cede to Harris this proposed reversion to the old priorities and the deadlock of strategic policy had continued.

In January 1945, with the unleashing of the new Russian offensive, Harris had again written to Portal. His letter, dispatched on the eighteenth, brought matters to a head. He again voiced dissatisfaction with the oil plan, and advocated the destruction of 'Magdeburg, Leipzig, Chemnitz, Dresden, Breslau, Posen, Halle, Erfurt, Gotha, Weimar, Eisenach and the rest of Berlin' – a shifting of emphasis, but only from the

industrial to eastern cities. Harris concluded in this letter by suggesting that Portal 'consider whether it is best for the prosecution of the war and the success of our arms, which alone matters' that he should remain in his Command. Faced with the unpleasant choice between losing a commander-in-chief at a critical stage of the war whose standing with the men of his command had never been higher, or leaving the current deadlock over priorities virtually unresolved, Sir Charles Portal chose the latter course; in a letter dated January 20 he asked Harris to remain in command, but to observe the existing priorities despite his lack of faith in them.

It was in these strained circumstances that less than a week later the revival of THUNDERCLAP – a highlight in the concept of area bombing – was to receive the highest possible stimulation. Quite independently of Bottomley's conversation with Harris, Mr Churchill was insisting on an aerial attack on the Eastern population centres.

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Mr Churchill too had considered the J.I.C. report on the implications of the new Soviet offensive. Late on January 25, before going off for a drink with President Franklin D Roosevelt's emissary Harry Hopkins, Churchill had phoned Sir Archibald Sinclair, his secretary of state for air, to inquire what proposals Bomber Command had, as he put it, for 'basting the Germans in their retreat from Breslau.' (to 'baste' normally means either to 'moisten meat with drippings, butter, etc., while cooking' or 'to beat with a stick; thrash; cudgel.')[8] There was, of course, no military retreat from Breslau – the city had been declared a Fortress several months before; the retreat from Breslau was entirely an evacuation of non-combatants. Historians to come will accordingly be pardoned for finding the Prime Minister's choice of words in questionable taste. Since the London newspapers were full of accounts of the harrowing scenes in the eastern cities where the refugees were arriving from Silesia and East Prussia, it is plain which 'retreat' Mr Churchill was referring to. The newspapers described refugees streaming through Berlin and the Saxon cities, and packed trains arriving from the eastern front. The Times reported on its main page that morning that Hans Schwarz van Berg, speaking on German radio, had described women and children crowding even the buffers between railway coaches and wag-

ons, despite the bitter cold; nevertheless, he had claimed, even all these refugees streaming through Berlin had not dislocated the Reich capital.[9]

The Prime Minister's insistence on such a radical change in the directive to the strategic bombers led to rapid consultations behind the scenes. Portal sent a minute to Bottomley on the following morning, January 26, recommending that oil targets should continue to enjoy absolute priority, with jet aircraft factories and submarine yards in second priority; subject to these target systems, in third priority rating, the modified THUNDERCLAP plan should be prepared (Portal doubted whether the time had come for a full-scale THUNDERCLAP, or whether it alone would be decisive): one big attack should be planned for on Berlin, with supplementary attacks on Dresden, Leipzig, Chemnitz and other cities where severe blitz would 'not only cause confusion in the evacuation from the East, but also hamper the movement of troops from the West.'

A copy of Portal's minute was provided for the Secretary of State for Air, and Sinclair had this in front of him when he replied in writing on January 26 to the Prime Minister's telephoned demand of the night before: Sinclair mistakenly believed that Churchill was interested in disrupting a German military withdrawal westward to Dresden and Berlin. He replied that this was under examination. He urged the prime minister not to press for attacks on these eastern population centres, as the lines of communications were more suitable to attacks by medium bombers and the Tactical Air Forces, particularly as winter cloud conditions would prelude the possibility of a THUNDERCLAP, which would have to last for three or four days. He recommended a continuation of the successful offensive against enemy oil plants, pointing out in effect that although this might not be as dramatic as enemy cities burning from end to end within full view of the Soviet armies, its benefits would be 'felt equally by the Russians and by ourselves,' and nothing should be allowed to interfere with it.[10]

The Prime Minister was pre-occupied with plans for the Yalta conference, and appears to have penetrated little deeper into Sir Archibald Sinclair's rather verbose minute than the first few lines. Ignoring Sinclair's detailed and convincing arguments, the Prime Minister dispatched a surprisingly caustic reply: 'I did not ask you last

night about plans for harrying the German retreat from Breslau,' he now asserted. 'On the contrary, I asked whether Berlin, and no doubt other large cities in East Germany should not now be considered especially attractive targets. I am glad that this is "under examination",' he added, mimicking the Liberal minister's reply: 'Pray report to me tomorrow what is going to be done.'[11]

The immediate results of this hard reply was to panic the Air Staff, whose Deputy Chief, Sir Norman Bottomley, was acting for Sir Charles Portal prior to the latter's departure for Yalta – into issuing an instruction in a letter to Sir Arthur Harris which would make it inevitable that the eastern population centres, including Dresden, would soon be the object of a modified version of THUNDERCLAP.[12] Bottomley reminded Harris of their telephone conversation two days earlier, in which they had touched upon attacks on the industrial areas of Berlin, Dresden, Chemnitz and Leipzig. Bottomley enclosed with his letter to Harris a copy of the J.I.C. report of January 25 which had examined in part the plan for delivery of a THUNDERCLAP attack on Berlin, but added that Portal did not think it would be right to attempt attacks on Berlin on the THUNDERCLAP scale in the immediate future, as it was doubtful whether such an attack, even if done on the heaviest scale with consequent heavy losses would be decisive. Portal had however agreed with the report's recommendation that Bomber Command use available effort in one big attack on Berlin and related attacks on Dresden, Leipzig, Chemnitz or any other cities 'where a severe blitz will not only cause confusion in the evacuation from the East but will also hamper the movement of troops from the west.'

Sir Norman Bottomley concluded his letter to Harris with the formal request that – subject to the qualifications still imposed on the execution of this attack on the eastern population centres by the 'overriding claims of oil and other approved target systems within the current [i.e. No 3] Directive', and as soon as moon and weather conditions permitted, Bomber Command was to undertake such attacks, 'with the particular object of exploiting the confused conditions which are likely to exist in the above mentioned cities during the successful Russian advance.'

The moon conditions were unlikely to be favourable much before February 4 however and Mr Churchill was informed of this immediately after Bottomley's letter

was couriered to Sir Arthur Harris. On the following day, January 28, the prime minister formally acknowledged the message. He had secured his political aim: soon after the fourth, at the climax of the Crimea conference, he would be able to produce a dramatic strike on an eastern German city with which to impress the Soviet delegation. He could not foresee that in fact nine more days – and the end of the Yalta conference – would pass before the weather too was propitious for such a long range operation.

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Meanwhile, Sir Norman Bottomley attempted to bring the Americans into the attack on these eastern cities. There is some evidence that both General George C Marshall and General Carl A 'Tooey' Spaatz, the commanding general of the U.S. Strategic Air Forces, knew of the developing plan to bomb eastern cities at this time, and supported it in principle.[13] On September 9, 1944 Eisenhower had discussed with Spaatz the idea of delivering a colossal air raid on Berlin. Ike's Psychological Warfare staff had recommended that they camouflage it as a strike against the Nazi administration, in order to deflect charges of delivering a terror-raid.[14]

Most of the American generals had however always opposed the bombing of civilians, while there is no record of their British counterparts expressing any such compunctions.[15] When the British tried to persuade the American strategic air forces to join in such raids, on September 15 General H H ('Hap') Arnold, commanding the U.S. Army Air Forces, and Roosevelt's personal chief of staff Admiral William D Leahy put their foot down against it in a meeting of the American Joint Chiefs of Staff.[16] This opposition had become plain in the latter part of 1944 when some Allied strategists advised by Professor Solly Zuckerman mooted a plan, code named CLARION, for an all-out attack on the German transportation network, including low-level bombing and machine gunning attacks by every plane taking part.[17] Many American generals rejected the idea however. General Charles P Cabell, an adviser to General Arnold, rejected any notion of killing helpless women and children.[18] When Spaatz's deputy commander, Major General Frederick L Anderson, sent this plan direct to the Fifteenth Air Force for comment, it attracted a hostile reaction from Lieutenant-

General Ira C Eaker, commanding general of the Eighth; Eaker wrote to Spaatz on the first day of 1945 that Zuckerman's 'crowd' seemed to 'have gone nuts on transportation', although the Germans had the best transportation network in the world; the most rewarding target was still surely the German oil reserves, he argued, 'where we really have the Hun by the neck.' Specifically, Eaker had protested that CLARION would convince the Germans that the Allies were barbarians: 'For it would be perfectly obvious to them that this is primarily a large-scale attack on civilians.' Moreover the plan totally contradicted an agreement reached between Spaatz and Robert Lovett, U.S. assistant secretary of war for air, about the need to adhere to military targets. 'If the time ever comes,' wrote Eaker in this letter, 'when we want to attack the civilian populace with a view to breaking civil morale such a plan [CLARION] is probably the way to do it. I personally, however, have become completely convinced that you and Bob Lovett are right and we should never allow the history of this war to convict us of throwing the strategic bomber at the man in the street.'[19]

Bringing the American heavy bomber squadrons in on any version of THUNDERCLAP would therefore require some diplomacy. On January 28 Sir Norman Bottomley seized the opportunity of a luncheon at Bovingdon with General Spaatz at Bovingdon to push a new order of bombing priorities to exploit, as he put it, the developing situation in the east. The former Directive No 3 to the Allied strategic air forces, in force since January 15, seemed to preclude attacks on eastern targets, as it stipulated that 'the Strategic Air Forces based in the United Kingdom will place particular emphasis upon the Ruhr' lines of communication.

Under the new directive to be issued the principal German synthetic oil plants were still to have top priority, but for the strategic bombers operating from Britain the second priority was now switched from the Ruhr communications to attacks on Berlin, Leipzig, Dresden and the other eastern population centres, designed to dislocate the refugee evacuation from the East, and to hamper troop movements. General Spaatz subsequently briefed Major-General Jimmy Doolittle of Eighth Bomber Command, which like R.A.F. Bomber Command had its headquarters at High Wycombe, to attack Berlin, apparently within this plan.

In reporting to Sir Charles Portal on this agreement, Bottomley suggested that the Russians 'might wish to know our intentions and plans for attack of targets in eastern Germany.' One complication would be that the British Military Mission in Moscow had been wound up in November 1944 when Lieutenant-General M B Burrows had been declared persona non grata, and the Russians, not recognising the existence of an air force distinct from either of the other two arms of the service would not tolerate an air force mission either; all communications to the Soviet General Staff in Moscow therefore had to be made through the American Military Mission under General J R Deane, and the head of the aviation section of this mission, Major-General Edmund B Hill.[20]

General Spaatz was uneasy about the changed in priorities. He specifically requested that Bottomley's minute to Portal, in which something akin to the American bombardment of area targets was clearly broached, also be shown to General Laurence Kuter, who was deputising for the convalescing General Arnold at Yalta. It is probable that Spaatz, whose own opposition to area bombing was becoming more pronounced, sought some confirmation of this new policy from a higher authority. Not until February 13 however did the British air officers show his message to General Kuter and by that time the American air force had already committed itself to the new policy.

In retrospect it is not difficult to surmise the nature of the approach made by Sir Norman Bottomley to the shrewd American general over that luncheon at Bovingdon. Spaatz would not permit his bombers to be sent on terror-raids against the German populace; it would be less simple for him to refuse to attack military targets in the heart of residential areas. Blind American attacks in daylight upon aiming points surrounded by residential areas would however be just as destructive as the blind night attacks delivered by the British on the residential areas themselves, as the Americans were aware. (Major-General Jimmy Doolittle was informed on January 26 that during blind air attacks the U.S. Eighth Bomber Command had an average circular probable aiming error of about two miles, which 'necessitated drenching an area with bombs to achieve any results'.) It is significant that when General Kuter, and

later General Arnold, heard of the change in policy, they immediately stopped further such attacks.

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Mr Churchill left London after a final Cabinet meeting held in the underground war room – because of the continuing V-weapon offensive against London – late on January 29, 1945 and flew across France to Malta where he was to consult with the American Joint Chiefs of Staff and Roosevelt before proceeding to Yalta.[21]

Two days later Sir Charles Portal told the chiefs of general staff (Brooke) and naval staff (Cunningham) about his plans to use the strategic bombers to assist the Russians by making 'heavy attacks on the four cities, Berlin, Dresden, Leipzig and Chemnitz' where, he felt, the resulting confusion would be most likely to hamper the German efforts to switch their forces between the western and eastern fronts.[22] That same day, January 31, Eisenhower's deputy Tedder and his air staff noted that the second priority for the Allied strategic air forces should be the 'attack of Berlin, Leipzig, Dresden and associated cities where heavy attack will cause great confusion in civilian evacuation from the east and hamper movement of reinforcements from other fronts.'[23]

On February 1, 1945 S.H.A.E.F. decided to attempt to break the German will to resist by demonstrating the terrifying Allied air power.[24] This was to be the first demonstration of the all-out two-day CLARION assault. Officially it was termed 'General Plan for Maximum Effort Attack against Transportation Objectives.'[25] General George C Marshall, the chief of staff of the American armed forces, strongly approved. He even suggested a raid on Munich deliberately designed to create maximum panic among the refugees there and to demonstrate to the German people the hopelessness of their plight.[26] One day before the British and American air forces launched CLARION Spaatz cabled to the commanders of the air force units to emphasise the military importance of the operation – they must avoid at all costs the impression that this was an operation designed to terrorise the civilian population.[27] In fact it would be February 22 before the CLARION was officially launched; the Americans executed the 'Marshall' raid on Munich three days later.

The Combined Chiefs of Staff – both British and American – had meanwhile also convened at Malta on the last day of January. Here they took the final decision to throw the strategic bombers into the battle in the east. Under the revised directive issued on January 31 from Malta, the bombing of Berlin, Leipzig, Dresden and other cities 'where heavy attacks will cause great confusion in civilian evacuation from the East and hamper reinforcement' now took second priority after the synthetic oil plants. Hampering reinforcements: the reference to troop movements was thus now only a two-word formality. The new directive relegated air raids on the Ruhr–Cologne–Kassel traffic complex to third priority. Major-General Frederick Anderson dispatched this revised directive from Malta 'for General Spaatz eyes alone' on February 2.

That Friday February 2 the Combined Strategic Targets Committee (C.S.T.C.) was holding its sixteenth meeting in London.[28] The nineteen officers representing the Air Staff, Bomber Command, the Ministry of Economic Warfare, S.H.A.E.F. and the U.S.A.A.F. met in Room 81/1 of the Air Ministry in Whitehall under the chairmanship of Air Commodore S O Bufton, Director of Bomber Operations. The first point on their agenda was the demand for the destruction of cities in eastern and central Germany to impede the refugees flooding to the west and the military transports moving to the east. The names of Berlin, Dresden and Leipzig were explicitly mentioned along with 'associated cities', a vague phrase which attracted some debate. That day, February 2, as (incorrect) reports reached London that elements of S.S. Obergruppenführer 'Sepp' Dietrich's Sixth S.S. Panzer Army were transferring from the western front to the east, the British vice-chiefs of staff also looked at emergency measures to halt the movements by bombing communications targets south and east of Berlin – Berlin itself and Dresden being specifically mentioned.[29] No doubt there was some collusion between the Vice Chiefs of Staff and the C.S.T.C.. The vice-chiefs telegraphed their detailed suggestions to Yalta overnight, identifying as priority targets certain 'focal points in the evacuation areas' behind the eastern front such as Berlin, Leipzig, Dresden, and Chemnitz.[30]

On February 3, a Saturday, overcoming whatever misgivings he may have had, Spaatz sent one thousand and three American heavy bombers to attack the centre of

Berlin in broad daylight, dropping 2,265 tons of bombs. This time the intent of creating maximum casualties and chaos among the refugees thronging into the capital was openly avowed. Although the B–17 crews had been led to believe that the Sixth S.S. Panzer Army was passing through the city to the Russian front, the underlying purpose of the attack was quite evident from one bombardier's diary entry: 'Five thousand-pounders. Shacked [i.e., killed] women and children!' The Flying Fortresses were allocated military objectives to aim at, but in the heart of residential and business areas. Although most of the flak had been withdrawn to the Oder front, twenty-one B–17s were destroyed over the city, and ninety-three suffered battle damage.[31]

German reports quoted in Sweden claimed that over twenty-five thousand people had lost their lives, including heavy casualties among the refugees. The figure was an exaggeration – the German High Command's diary recorded that less than a thousand died – but the American commanders can have had little doubt of the probable results of any more such blind attacks. General Spaatz however was convalescing from an illness, and he would authorise the Eighth Air Force raid on Dresden before the implications of the attack on Berlin had fully sunk in. At his Allied air commanders' conference on February 8, Spaatz drew attention to the spectacular results of this Berlin attack; he too added that it was suspected that the 'Sixth Panzer Army' was on its way through the capital to reinforce the Eastern front.

After this air raid the Japanese ambassador in Berlin was monitored by the British reporting to Tokyo that the German foreign ministry had informed him that one of the neutral diplomats in Berlin 'had telegraphed to his Government asking them to advise Britain and America to stop the terror-bombing as this was driving the German people into the arms of Russia.'[32]

Troubled by the news agency reports of the carnage caused by this raid on Berlin General Kuter sent a message to Spaatz from Yalta on the thirteenth asking whether the revised directive of January 31 had authorised what he called 'indiscriminate attacks' on cities.[33] From Washington, Lieutenant General Barney M Giles seconded Kuter's inquiry the next day, February 14 – even as Dresden was under American attack and blazing.[34] Spaatz, nettled by these inquiries, replied evasively – his forces were really observing the original Directive No 3, he explained, and not the revision

of January 31: his bomber squadrons were not bombing cities indiscriminately, he said, but attacking transportation facilities inside cities, in operations which the Soviets had requested and seemed to appreciate.[35]

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At this time, the fiction that Dresden was an important industrial city appears to have been only superficially accepted. The War Office department responsible for briefing the Chief of the Imperial General Staff on all air matters fully endorsed the attack on the German synthetic oil plants, but viewed with some suspicion the strategic air offensive on German cities; when the Russians had appealed in general for an Allied air attack on communication centres, a map was produced indicating some of the communications centres which might be included in this request. One of the towns listed in this communications map was Dresden, as it was 'just possible' to put it in this category. However, it was 'certainly not an important industrial centre'; indeed, the information which the department had to supply to the Chief of the Imperial General Staff about Dresden was 'that it was not being used so much as a transport centre by the German Army as by vast numbers of refugees from the Soviet front.'[36]

At the Crimea conference meanwhile the days passed and there was no word of the great THUNDERCLAP that Churchill had imperiously called for. On February 4 he met with Roosevelt and Stalin. Stalin invited the deputy chief of the Soviet general staff, General Antonov, to outline the war on the eastern front; Antonov stated three specific requests, one of which was to use Allied air power to prevent the enemy from shifting his troops from other theatres to the east (while not mentioning Dresden specifically, the Soviet general did suggest the bombing of Berlin and Leipzig).[37]

Although the Big Three did not debate the saturation bombing of civilian targets at Yalta, it is worth noting that Churchill took a robust view of the expendibility of German non-combatants. When the British prime minister protested about the problems that would face the Allies in housing and feeding, in their allotted sector of western Germany, the refugees fleeing from East Prussia and Silesia – around six million Germans being involved – Stalin passed over the problem with a witticism.

'But one has to consider also,' objected Churchill, according to the transcript, 'where *are* those Germans who run away? Will there be room for them in what is left of Germany? We have killed six or seven million Germans and probably there will be another million or so killed before the end of the war.'[38]

On February 4 and 5 the weather prevented long-range air operations by the British or Americans, and on the sixth it compelled a diversion from an attempted precision attack on oil targets to the associated secondary targets in the marshalling yards at Chemnitz, thirty miles south-west of Dresden, and Magdeburg. Some eight hundred tons of bombs were dropped on each city, in compliance with the general spirit of the Russian request for assistance. Clearly the time when bombs would be falling on Dresden from either British or American bombers was not far off.

On February 7 and 8 heavy bomber forces were detailed for daylight operations over Germany, but on both occasions the missions were scrubbed because of deteriorating weather conditions. On the seventh too a labour M.P. demanded to know when Chemnitz, Dresden, Dessau, Freiburg, and Würzburg, cities 'which have had little or nor experience so far in this connection,' would be bombed.

On that same date, although perhaps he did not know it, a specific order listing Dresden for attack at the earliest opportunity was being authorised. The ultimate decision lay in the hands of S.H.A.E.F., which acted on the recommendations of its Combined Strategic Targets Committee (C.S.T.C.) and the Joint Intelligence Committee (J.I.C.).[39] The C.S.T.C. had met since October 1944 in the Air Ministry building in Whitehall. Even as the Labour politician was speaking in Parliament, the C.S.T.C. was convening again in Room 81/1 of the Air Ministry building, at 2:45 P.M. on Wednesday February 7, for its seventeenth meeting.[40] The officers present all agreed that the many area attacks of recent months had dramatically reduced the number of targets still available. As a result of this meeting the C.S.T.C. telexed a new top secret Target List to Bomber Command, to the American strategic air force command and to S.H.A.E.F. Headquarters at 6:45 P.M. on the eighth.[41] Paragraph one read:

The following targets have been selected for their importance in relation to the movements of Evacuees from, and of military forces to, the Eastern front.

1. Berlin
2. Dresden
3. Chemnitz
4. Leipzig
5. Halle
6. Plauen
7. Dessau
8. Potsdam
9. Erfurt
10A Magdeburg.

The second paragraph listed seventeen subsidiary targets to be attacked when weather conditions did not permit the main targets to be attacked.

By a process of elimination, the area bombing offensive against German cities was on the threshold of its climax.

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With the Soviet armour halted temporarily at the Oder, the refugee tide descending on Dresden had ebbed to a trickle. Then, on February 8, Soviet armies succeeding in crossing the Oder in many places, and the regions immediately west of the river became battlefields. The refugees in these regions, who had only days before thought themselves safe, now rejoined the headlong rush to the west; at the same time a pincer movement to seal off Breslau was launched by the Soviet troops.

The evacuation of Western Silesia too now began. Of 35,000 inhabitants of the town of Grünberg, thanks to swift Party evacuation orders, all but four thousand escaped in time. Other towns were less fortunate: Liegnitz had already been declared a reception area for refugees from towns east of the Oder; its normal population of 76,000 was multiplied many times by these refugees; lacking the agricultural transport common in other provinces, twenty thousand German civilians were left behind when Soviet troops occupied the town, the second largest in Western Silesia. These civilians were to suffer fearfully at the hands of both the Soviet troops and of the Polish minority.

The scale of this migration, which was both to cause and to compound the Dresden tragedy, can be only approximately indicated. At the beginning of 1945, the

population of Silesia had numbered some 4,718,000 people, of which about one and a half million could not escape in time or, being of Polish origin, stayed behind. Of the 3·2 million who took flight, half sought refuge in Bohemia and Moravia, not even suspecting the racialist atrocities which were in store for them after the Czech uprising there; the remainder fled deeper into Germany, numbering some 1·6 million. Silesians represented probably eighty percent of the displaced persons crowding into Dresden on the night of the triple blow; the city was by the eve of the air attack so crowded with Silesians, East Prussians, and Pomeranians from the eastern front, with Berliners, and with Rhinelanders from the west, with Allied and Russian prisoners of war, with evacuated children's settlements, and with forced labourers of every nationality, that the population had swollen to between 1,200,000 and 1,400,000 citizens, of whom literally hundreds of thousands had no roof over their heads – let alone the protection of an air raid shelter.[42]

On the afternoon of February 12, with the arrival in Dresden of the last official refugee trains from the east, the city had reached bursting point. The first official refugee trains westwards would run some days later.

Still refugee columns were pouring into Dresden on foot and packed into horse-carts, an endless stream of humanity trudging along the autobahn from the east. Not all them were civilians – some were soldiers who had lost their units on the front. Military police patrols stationed at the outskirts of the city tried to control this *Rückstau Ost* – Backwash-East – of refugees and to redirect the soldiers to assembly areas. However the evidence does not support the Soviet belief that Dresden itself was being used as an assembly centre for these troops; the military police directed the stray troops to assembly areas outside the city. The refugees were also being diverted round the city, as the approach roads were blocked with the convoys of horses and carts, each three hundred yards long; refugees on foot were permitted to enter the town, but warned to move on again within three days.[43]

Most of the refugees were simple agricultural people, who had lived remote from the ugly manifestations of modern warfare, in their farming communities in the eastern marchlands. Very few of these eastern peasants had ever heard an air raid siren before, nor would they now. For six days before the triple blow, the air raid warnings

did not sound in Dresden. These were the peasants who would have benefited from the Lebensraum policies which their Führer had mapped out for them in the east; now they were to become the victims of the western Allies' sweet revenge, in the bloodiest massacre of the European war. Dresden, as the Official Historians would dryly record, had become a 'desirable bombing target in its own right'.

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The appearance of Dresden as a specific target for attack came as a surprise not only to Harris and Saundby but also to the Command's Intelligence Staff. Since 1944, in addition to the directives issued from time to time to the two Allied bomber commanders, Bomber Command had received a weekly target priority list from the Combined Strategic Targets Committee, a joint committee including representatives from British and American air force authorities, and the S.H.A.E.F. Intelligence sections; Bomber Command normally selected its target from these weekly lists, according to the weather conditions and similar tactical considerations; sometimes, to be sure, attacks specifically asked for on particular targets not listed by the committee, but in these cases Bomber Command was invariably given the reason for the emergency. Dresden, however, had not yet appeared in these weekly target lists, and as a result Bomber Command's intelligence section was in a quandary, as they had no great volume of preparatory matter for an attack on Dresden.

By several accounts, Harris was not pleased. Saundby would later recall, 'We did in fact question whether Dresden was intended to be bombed.'[44] According to Air Vice-Marshal Richard Harrison, operations officer at Bomber Command headquarters and later commander of a bomber group, when Harris heard of the order he said: 'This is crazy.' He got into his own car and motored up to London to be told: 'You get on and do what you are told.'[45]

For five days after February 8, 1945 the meteorological section at Bomber Command was unable to forecast weather favourable for a long range thrust into Central Germany. On Harris' authority, Sir Robert Saundby took the opportunity to query the Dresden order through the Air Ministry. He suggested that in the light of their information the ministry double-check the inclusion of Dresden before the Com-

mand went ahead. They did not query their orders lightly, and when they did they would speak to Sir Norman Bottomley or his representative on the scrambler telephone. 'We were not keen about going such a long way', recalled Sir Robert Saundby, 'and it was a diversion from our task at the time'. On previous occasions Bottomley had got back to Saundby within a matter of hours. On this occasion however he was told that the matter would have to be referred to a higher authority.[46]

It was not for several days that the answer came through. Saundby was informed by scrambler telephone that Dresden was to be included in the order, and that the attack was to take place at the first suitable opportunity. He understood that the attack was part of a programme in which the prime minister was personally interested, and that the delay in answering the query was because it had been referred to Mr Churchill in Yalta. (Sir Charles Portal was of course also at Yalta, and the query may have been dealt with by him alone.)

Saundby understood that the request had come from the Russians, that the Russians had insisted that Dresden was full of armoured German forces, re-grouping and preparing for battle. The Official Historians found no evidence of such a Soviet request. The Russians also later denied it, and there is no evidence that a request came through the usual liaison channel, the American Military Mission in Moscow. General Deane, the head of the mission who was at that time also at Yalta, later had no recollection of any such Russian request. In other instances he was specifically apprised by the Russians, for example when they demanded the bombing of the German general staff headquarters at Zossen, outside Potsdam, and an attack on a particular shipping concentration at Swinemünde.

In his memoirs, Sir Arthur Harris allowed himself only the guarded comment that 'the attack on Dresden was at the time considered a military necessity by more important people than myself'.

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Without doubt the Prime Minister was as pre-occupied at the end of the Crimea Conference on February 11, 1945 as he was at its commencement, and there was no reason why, once pressed for, the raid on Dresden should now be called off.

Early on the thirteenth, at the daily morning conference presided over by Sir Arthur Harris, the met. officer reported that weather conditions would at last be favourable for an attack on Dresden. Although there would be ten-tenths cloud over most of the route out, the cloud tops would probably lower to six thousand feet beyond five to seven degrees east. In the Dresden and Leipzig areas there was a chance of the cloud breaking to half cover, and there was some risk of thin medium cloud layers spreading over between fifteen and twenty thousand feet. The meteorological report added that Bomber Command's airfields would be generally 5/10t for landing by the time that the bombers returned from the nine-hour flight to Dresden.[47]

That put the ball in Eisenhower's court. Shortly before nine A.M. in a telephone conversation with Air Marshal R D Oxland, Bomber Command's liaison officer at S.H.A.E.F. Headquarters, gave final clearance for the attack, and Sir Arthur Harris issued the order to attack Dresden. It had ceased to be the object of messages and minutes between air marshals, ministers and committees; now it was an affair of machines and men, of bombs and flares, of briefing officers and bomb-aimers. 'With a heavy heart,' related Sir Robert Saundby, 'I was forced to lay the massive air raid on'.

That day Mr Churchill and his staff rejoined the Cunard liner Franconia, waiting at anchor off the Crimea. Aboard the luxury liner they feasted like lords and quarrelled about which country to visit next. Due to address the ship's company that evening at eight-thirty, the prime minister first left the sailors standing shivering at attention in the chilly Black Sea breezes for half an hour in a brutal display of power.

It was eleven-thirty P.M. in England and Germany. Seven thousand airmen were now aloft and heading for Dresden.

[1] Octagon summary, Office No. 691, US Military Mission in Moscow, Sep 16, 1944; memo of conversation between Stalin, Churchill, Harriman and others, Oct 14, 1944, Moscow. – Walter F

Angell Jr., 'Historical Analysis of the 14–15 February 1945 Bombings of Dresden.' (USAF Historical Division Archives). In 1970 the author corresponded at length with Major Melden E Smith, Jr., a Boston, Massachusetts, historian who had seen *two* versions of the Angell study, one clearly sanitised of sensitive materials. Smith also saw 'British and Soviet intelligence figures' on the Dresden casualties, both lying in the 18–40,000 range; the Soviet report had been submitted shortly aftrer they occupied Dresden in May 1945. – Melden E Smith, Jr., Ph.D. dissertation: 'The Bombing of Dresden Reconsidered: A Study in Wartime Decision-Making' (Ann Arbor, Michigan: University Microfilms, 1971).

[2] Harriman's memo on the conversation, cited by Walter F Angell Jr., ibid.

[3] Tedder memo, Jan 15, 1945, cited by Walter F Angell Jr., ibid.

[4] Kuter to Anderson, Aug 15, 1944 (Maxwell AFB, Spaatz papers, box 153, 'Thunderclap folder').

[5] Sir Frank H Hinsley, *British Intelligence in the Second World War. Its Influence on Strategy and Operations*, vol.iii (2), (London & New York, 1984) p.615.

[6] JIC report (45) 31 (O) (Revised Final) Jan 25, 1945 (PRO file CAB.79/29); for the JIC minute entitled 'Bombing of Berlin' Jan 25, 1945 see too the Frederick L Anderson papers in the Hoover Library.

[7] Sir Norman Bottomley, note on a conversation with Harris, Jan 26, 1945, cited in Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iii, p.100.

[8] Minute by A.P.S. of S. (Air Chief Marshal Sir Wilfrid Freeman), Jan 26, 1945 (in Air Historical Branch file CMS.608); Martin Gilbert, vii, 1161 softens Churchill's word from 'basting' to 'blasting' – or perhaps his automatic spellchecker is to blame.

[9] The Times, Jan 25, 1945.

[10] Ibid.

[11] Churchill to Sinclair, minute M.115/5, Jan 26, 1945 (ibid.; Churchill papers, 20/209).

[12] Bottomley to Harris, Jan 27, 1945; printed in full in Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iv, p.301 (Appendix 28).

[13] Internal Address SHAEF Main to Air Officer commanding Mataf for Spaatz and Vice Chief of the Air Staff, Jan 31, 1945 (Anderson diary, Jan 31, 1945: Anderson papers).

[14] Ronald Schaffer, *Wings of Judgment: American Bombing in World War II* (New York, Oxford, 1985), p.84.

[15] The discussion of the American part in the attack is based on *The Army Air Forces in World War II: Europe: Argument to V–E day, Jan 1944 to May 1945* (Chicago, 1951), vol.iii, pp.722 onwards, and on personal communications to the author from General Carl A Spaatz.

[16] Joint Chiefs of Staff, Corrigendum to JCS 176th meeting, minutes Sep 15, 1944, copy No. 59 (Maxwell AFB archives).

[17] PRO file AIR.14/915, 'General Plan for Maximum Effort Attack against Transportation Objectives' Dec 17, 1944; and see AIR.14/1421.

[18] Ronald Schaffer, *Wings of Judgment*, (New York & Oxford, 1985) p.88

[19] Ira C Eaker to Carl A Spaatz, eyes only, Jan 1, 1945 (Libr. of Congress, Spaatz papers, box 20; courtesy of JLS Hayward; and cited in *The Army Air Forces in World War II: Europe: Argument to V–E day, Jan 1944 to May 1945* (Chicago, 1951), vol.iii, 733.

[20] Lieutenant-General M B Burrows to the author.

[21] PM's appointment diary card, Jan 29, 1945 (copy in author's possession).

[22] COS Committee (Argonaut), meeting of Jan 31, 1945 (PRO file, CAB.120/170).

[23] Message, SHAEF SCM OUT 4025 1274A, Jan 31, 1945, cited by Walter F Angell Jr., 'Historical Analysis of the 14–15 February 1945 Bombings of Dresden.' (USAF Historical Division Archives).

[24] *The Army Air Forces in World War II: Europe: Argument to V–E day, Jan 1944 to May 1945* (Chicago, 1951), vol.iii, p.639; 'Notes of the Allied Air Commanders' Conference held at SHAEF, Feb 1, 1945,' Spaatz Papers, Maxwell AFB, micro5lm 520.3233–40.

[25] PRO file AIR.14/915, 'General Plan for Maximum Effort Attack against Transportation Objectives' Dec 17, 1944; and see AIR.14/1421.

[26] Anderson to Spaatz, Feb 1, 1945 (Anderson diary, Feb 1, 1945: Hoover Library, Frederick Anderson Papers); and memorandum by Alfred R Maxwell, Feb 14, 1945 (ibid.)

[27] Spaatz to Doolittle, Eaker, and others, Feb 21, 1945 (Maxwell AFB, Microfilm 520.3233–40.)

[28] CSTC 16th meeting, Feb 2, 1945 (PRO file AIR.40/1269). Squadron Leder Fawssett represented Bomber Command.

[29] Vice Chiefs of Staff meeting, Feb 2, 1945 (PRO file CAB.79/29).

[30] COS to Yalta, 'Fleece' No.75, Feb 2, 1945 (ibid.)

[31] Roger Freeman, *The Mighty Eighth* (New York) 1970), 208.

[32] Ambassador Oshima to Tokyo, Feb 10, 1945, cited in 'Ultra History of U.S. Strategic Air Force Europe vs. German Air Force,' Jun 1945 (National Archives, Washington DC, RG.457, file SRH–

013).

33 Message, Kuter to Spaatz, U–13314, Feb 13, 1945, cited in *The Army Air Forces in World War II: Europe: Argument to V–E day, Jan 1944 to May 1945* (Chicago, 1951), vol.iii, chap.xx, 726ff.

34 Message, Giles to Kuter, CM–OUT–37181, Feb 14, 1945; cited in ibid.

35 Message, Spaatz to Kuter, U–14466, Feb 14, 1945 (USAF Historical Division archives). General Spaatz averred to this author that at no stage did he depart from the US directive for attack on 'military objectives'; in the case of Dresden this was to be the marshalling yards.

36 Information to the author from the then Major (G.S.) David Ormsby-Gore, later Lord Harlech.

37 ARGONAUT conference, James F Byrnes' shorthand note of the Plenary Session on Sunday, Feb 4, 1945 at 5 p.m. (H S Truman Library, Independence, Missouri). Angell's study (p. 12) suggests that the Allied air authorities, after studying the structure of the Berlin–Leipzig–Dresden railway complex, were bound to include Dresden too.

38 James F Byrnes' shorthand note of the Plenary Session at Yalta, Feb 7, 1945 (H S Truman Libr., Independence, Missouri).

39 Message, SHAEF SCM IN 5157, Jan 14, 1945, cit. in Walter F Angell Jr., 'Historical Analysis of the 14–15 February 1945 Bombings of Dresden.' (USAF Historical Division Archives).

40 CSTC 17th meeting, Feb 7, 1945 (PRO file AIR.40/1269).

41 Air Ministry message MSW 207, CSTC Target List dispatched on Feb 8, 1945 (PRO file AIR.40/1514); also cit. in Walter F Angell Jr., ibid.

42 Documents on the Expulsion, op. cit.

43 *Aktuell*, op. cit; and information to the author from Horst Galle, one such military policeman.

44 Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

45 Dr Hugh Bannerman, Wing Commander (ret.), to the author on Dec 3, 1993, quoting Harrison.

46 Information from Saundby to the author; and Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

47 RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO files; transcript on author's microfilm DI–35).

Part Three

THE EXECUTION OF THE ATTACK

The Plan of Attack

The TECHNICAL AND STRATEGIC problems that faced Bomber Command in carrying out the 'massive air attack' on Dresden, a city in the heart of Central Germany, could not have been easily resolved at any earlier stage of the war.[1] The weather during February 1945 remained poor, and for an attack which would involve a nine- to ten-hour flight by the Lancaster force, and which would require standards of timing and concentration on the target rivalling the best that Air Chief Marshal Harris had ever achieved, the meteorological outlook was of considerable importance.

In the early weeks of 1945, the German night fighter defence had been of indeterminate strength. The fighter force was indeed numerically diminishing, and the fighter crews were tired and reaching breaking point; but by February 1945 the area that they were required to defend was also shrinking, as the invading armies rolled back the Reich frontiers into Germany.

For this reason Harris planned the execution of the attack on Dresden as a double blow, the value of which he had tested as early as October 1944.

This strategy had only become practicable late in the war, as large numbers of front line aircraft became available. 'The theory of it was,' said Saundby years later, 'the first blow would bring up all the fighters into the air, would alert all the searchlights

and the fire services; the attack would then take place, and a large number of fires would be started, a good deal of disorganisation would occur and, and the fighters in due course would run out of petrol and ammunition and have to go down to refuel. That was the moment in which it was intended to stage the second attack, catching them with, uh, at a disadvantage.'[2] No 5 Group's Master Bomber at Dresden echoed this: 'You could embarrass the defences either by making sure that the fighters were just about to run out of gas at the time that the second wave was coming over or in the target area.'

It was also intended that the German fire services and other passive defences would be preoccupied by the conflagrations caused in the first attack; they would then be swamped and overwhelmed by the second blow. The third profit to be drawn from a double-blow was that the first strike would interrupt any telephonic or telegraphic communications passing through the target city to the fighter and flak defences; this would paralyse the defences in the air and on the ground, and the civil defence forces would be caught unawares by the second strike.

Air Chief Marshal Harris and his tacticians had calculated the optimum interval to be about three hours. If the delay were any shorter, the fighter squadrons might not be properly dispersed; the fires would not have properly taken hold and the fire-fighting defences would not be overwhelmed in the second attack. If the interval were any longer, the active defences would be refreshed and ready to do battle anew and, knowing the probable identity of the target of the second attack, they would be able to inflict heavier losses on the bomber stream.

For five days a belt of cloud covered most of Central Europe after Harris and his staff had received the order to bomb Dresden. Apart from No 3 Bomber Group, a force specially trained and equipped for blind daylight bombing on instrument through cloud layers, the whole of his Command was grounded.

The end of the Yalta conference came and went. Harris was able to use the interval before issuing the executive order to bomb Dresden to collate and check all available information on the city, and to ascertain once more that no mistake had been made by the Air Ministry in confirming the order to attack the city; his staff officers were

still not able to procure any standard H_2S comparison photographs, which were not included in the original Dresden file.

Then, on February 12, 1945, the meteorological section at High Wycombe was able to promise the two allied Bomber Commanders reasonable weather conditions over the Continent during the following day, Tuesday the thirteenth.

In the early hours of the thirteenth the American crews were briefed for an attack on two alternative targets. If the weather was satisfactory the Flying Fortress crews were to attempt Plan B, the long flight to Dresden, and attack the railway yards and stations there in either a precision visual attack or a blind attack on instruments, as a preliminary to a heavy R.A.F. blow. If the weather closed down central German operations, then the alternative American target was Plan A, Kassel. But the weather which had looked favourable the night before deteriorated suddenly on the early morning of the fated day, and both American missions were cancelled; ice clouds were blanketing Europe and in Dresden itself a thin frosty snow was drifting down out of the sky.[3] Thus the honour – as it was described to the Master Bomber, Wing Commander Maurice Smith – of striking the first blow at Dresden, the virgin target, fell to Royal Air Force Bomber Command.

Soon after nine o'clock on Tuesday morning, February 13, having studied the weather reports and synoptic charts, the Commander in Chief ordered his Deputy, Air Marshal Sir Robert Saundby to lay on the attack on Dresden. The plan of attack had already been decided; it remained only for Saundby to pass the appropriate coded signal to the five Bomber Group headquarters directly concerned.

The Russian front lay less than eighty miles to the east of Dresden. There must be no chance of any of the Lancasters going astray and dropping their bomb load behind the Red Army Lines; even less must the target-making force be permitted any latitude for error. The highest precision in navigation was required; only Loran could provide this. The Royal Air Force's most up-to-date piece of electronic long-range navigation equipment, installed only in a few aircraft, Loran was to be used to make the initial fix on the target area, and Smith was thereafter to rely on low-level visual marking for the attack.[4]

Loran, a bulky piece of equipment housed in several metal containers strapped into the already cramped cockpit of nine Mosquito high-speed bombers, was originally designed to be installed in Lancasters and used in long-range attacks in the Pacific theatre of the war. Basically an upgrade of the Gee radio-beam navigation device, which spun an invisible web of beams across the Western European ether, Loran did not suffer from the shortcomings of Gee which permitted its use only within relatively short distances of the transmitter chains. Using reflected radio waves from the 'E'-layer, Loran had a range of some fifteen hundred miles; but the use of the 'E'-layers limited its applicability to night flying only. Before February 1945 the R.A.F. had never relied on it for an operation.

The crews of the nine Mosquito aircraft fitted with Loran were quickly trained in the operation of their equipment; Bomber Command's navigation chiefs crossed their fingers and hoped that on the night the gear would work perfectly; the English Gee chain's radio beams, even when not jammed by the enemy, petered out some 150 miles west of Dresden; the signals picked up from the mobile Gee transmitters moving up behind the Allied lines were unreliable and even they did not extend to Dresden, the target city.

There was however an added complication involved in navigating successfully to Dresden by Loran – because of the curvature of the earth the beams would probably not be picked up below nineteen thousand feet. The Master Bomber and his eight Marker Mosquitoes would have to endure a painful switchback dive from nineteen thousand feet to their normal marking altitude of less than one thousand feet within four or five minutes if they were to arrive at the target area on time.[5]

The political embarrassment that any mistaken target marking would occasion was clear: The Allied leaders had promised the Red Army High Command the destruction of Dresden during the next few nights; the blow was intended not only as a demonstration of solidarity with the Russian but also as a timely expression of the terrible striking power possessed by the Western allies. If when the ashes settled and the smoke cleared it was found that the Lancasters had groped their way across Europe and destroyed Prague or some other city the embarrassment would be bitter; if the

bombers were to strike a city behind the Red Army lines the consequences did not bear thinking about.

This was why Harris had insisted that Loran must be available to the crews responsible for initially finding and identifying the city and marking the target area. And this was why he decided that the initial blow should be struck by No 5 Bomber Group with Air Vice-Marshal the Hon. Ralph Cochrane's famous low-level visual technique.[6] (Command of the Group had in fact passed one month before to Air Vice-Marshal H A Constantine; but to all intents and purpose the technique evolved for the Dresden attack was elaborated and developed during the period that Cochrane was at Swinderby).

The early record of the rival No 8 (Pathfinder) Group was marred by unfortunate incidents where it had marked the wrong town – though this was largely a product of the refusal of other Group commanders to provide Air Vice-marshal Bennett's Group with their best crews for Pathfinder training. In the first months of the Pathfinder Force's existence they had marked Harburg instead of Hamburg, they had missed Flensburg completely, and they had heavily damaged Saarlouis instead of Saarbrücken; in researching many raids on cities like Frankfurt and Nuremberg which to this day have gone down in the official histories as successfully marked by Pathfinder crews we find in the city archives and Police reports that although the sirens sounded that night, not a single bomb fell within the city boundaries.[7] Until the introduction of the highly accurate Oboe beam-system, the Pathfinder Force was looked at askance by many of the senior officers at Bomber Command Headquarters. Oboe however reached only as far as the Ruhr; even the trailer-mounted Oboe stations moving up behind the Allied lines in France and Germany did not reach halfway to Dresden. Moreover, the No 8 Group Pathfinders were untrained in the visual identification of targets from low levels. Thus 'Butcher' Harris had selected No 5 Group's unofficial pathfinder force to lead the attack on Dresden on the night of February 13, 1945.

Harris and his commanders had honed Bomber Command's killing techniques to a fine edge. Intricate planning went into every minute of these huge, set-piece attacks to ensure the maximum kill for the minimum cost.

The eight Mosquito markers from No 627 Squadron were to use their Loran sets to reach the proximity of the city, flying independently of the main force of marker and bomber aircraft; since the Mosquitoes hardly even had the range to reach as far as Dresden with a full load of flares they would have to follow an almost direct route, while the Lancasters of the marker and bombing forces could be routed out to Dresden by more leisurely course, taking them first to a rendezvous over Reading, then out over the Channel to a point on the French coast by the Somme estuary, from which they would fly due east for some 130 miles; on reaching the line of five degrees east they would then head directly for the Ruhr, setting the sirens wailing throughout Germany's industrial cities. Ten miles north of Aachen, the bombers would head across the Rhine between Düsseldorf and Cologne; at nine P.M., with the heavy bomber formations still droning high across the Rhineland, swift Mosquito formations from the No 8 Group's Light Night Striking Force would attack Dortmund and Bonn to divert the attention of the night fighter controllers. The Lancasters would then begin skirting by a northerly route round Kassel and Leipzig; five minutes before the attack on Dresden was due to commence, a force of Halifaxes from No 4 and No 6 Groups would attack an oil refinery at Böhlen, just south of Leipzig, in a large-scale diversionary move.

The Lancasters – code-named 'Plate-Rack Force' – would however be heading south-east, almost following the course of the River Elbe, bearing at high speed downwind towards the target city, Dresden. After unloading their bombs the whole force would be withdrawn by a totally different southerly route, passing south of Nuremberg, Stuttgart, and Strasbourg. The flare force and primary marker Lancasters for the attack on Dresden, supplied by Squadrons Nos 83 and 97, and also equipped with Loran, would approach along the same route. These Lancasters were crewed with especially trained radar operators, highly skilled in interpreting the data provided by the H_2S radar equipment. On the small cathode-ray tubes of this equipment, a rotating time base provided a crude shadow-pattern picture of the landscape beneath the aircraft, showing up rivers and large expanses of water as dark patches amidst the green of the land itself and the brilliantly glowing towns.

At best H_2S was only a confirmation of the existence of some city ahead of the bomber; unless, as in the case of Hamburg and Königsberg, there was a sharply defined water-front or system of docks, the town itself would not be readily identifiable from the tube. Dresden on the radar scope was one of the non-descript towns-on-a-river with which Central Germany, both sides of the Red Army front, abounded. Only the characteristic S-bend in the River Elbe made a feature for the radar operators to watch out for. They had no comparison radar photographs to guide them: Attacks on other cities had yielded Leica-photographs of the H_2S screen over the target; the operators could then compare the photographs of the target-image with the image on their screens for certainty. But Dresden had not been attacked by Bomber Command since the introduction of H_2S.

It was the duty of these Lancasters of Nos 83 and 97 Squadrons to arrive at Dresden some eleven minutes before zero hour. While some dropped strings of three-minute parachute flares across the city, together with make-weights of long-delay high explosive time-bombs, the others would attempt to lob green target indicator bombs, set barometrically to burst at two- to three-thousand feet above the approximate position of the aiming point as it appeared on the radar screen. This was the pathfinder technique known as 'Newhaven.' At no time was any attempt at a visual identification to be made by these first waves of bombers over the target. Their task was only to point out the approximate position of the city, and the rough location, give or take a mile or two, of the allocated aiming point. These flares were to guide the eight Mosquito crews, whose task was to search the landscape from only a thousand feet up for the marking point itself, and to mark it with salvoes of red marker bombs.

If the first attack on Dresden was to provide the unmistakable beacon that Harris required for the second blow, which would be delivered by the rank-and-file bomber squadrons of the rest of his Command, the city must be set well on fire.

A fire-storm would provide that beacon. The German engineer directing civil defence measures in Dresden afterwards characterised the fire-storm phenomena as 'a slowly developing series of fires scattered evenly across a large area, fires which were not extinguished by the inhabitants (who preferred to remain in their basements,

cowed by the explosions of the time-bombs) and which suddenly multiplied and spread as thousands of individual conflagrations united'. This period would take about half an hour or more. Air Chief Marshal Harris calculated that within three hours the fires should have gained a good grip on the centre of the city, provided that there was a strong enough ground wind and that the incendiary loads were well concentrated; three hours would give sufficient time for the fire brigades from most of the big cities of central Germany to come to the assistance of the burning Dresden and to penetrate to the heart of the Old City.

All this happened exactly as he had planned.

Only the No 5 Group sector-attack provided the degree of saturation required to start a fire-storm. Every time it had been employed before it had caused a fire-storm of some degree. Previously the fire-storm had been merely an unforeseen result of the attack; in the double-blow on Dresden the fire-storm was to be an integral part of the strategy.

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As in all the other major attacks now carried out by No 5 Group, a Master Bomber was required to control the development of the attack. The Master Bombers (or 'controllers') were all provided by 54 Base at Coningsby, the headquarters for the Group's unofficial pathfinder Force. The low level marking technique, whereby a Mosquito bomber carried a large pyrotechnic bomb and put it down within a one or two hundred yards of the aiming point, had also been developed at 54 Base.

To control the attacks on Dresden and the two decoy targets, the choice fell on No 5 Group's three most experienced Master Bombers. By rotation, the officer selected to lead the Dresden raid was Wing Commander Maurice Smith, an urbane, elegant, quiet spoken gentleman.[8] 'Frankly,' he later said, 'I was not very pleased to be chosen for the Dresden raid.' The target was at the extreme limit of his plane's endurance; it would be a long, fatiguing mission for a single pilot (flying without an autopilot in those days); he and the main force bombers would be returning over enemy territory in the twilight of dawn. Heavily loaded as it would be, the Mosquito

was not an easy plane to handle on instruments and in clouds. But he also had a proper respect for the city's fame as a centre for producing delicate porcelain.[9]

As Smith's flying logbook showed, he had himself controlled raids on several larger German cities, including Karlsruhe and Heilbronn, and he was an expert in directing the marking and development of sector-attacks. His deputy, the Marker Leader, Flight Lieutenant William Topper, was also a veteran of the Heilbronn and other sector-attacks. Smith has written since the war in specialised publications that as Master Bomber he was 'in effect the personal representative of the Air Officer Commanding [Sir Arthur Harris] in the target area'. Of squadron commander status, he would be given complete control of the attack after an in-depth briefing. His job was as hazardous as it was responsible: he had to remain in the target area for the duration of the attack, often flying at low altitude regardless of the enemy defences.

Providing all went well his duty was largely a psychological one. 'It's not always the instructions you notice so much as the relief at hearing a good English voice getting things organised ahead of you after that long slog through flak and dirty weather,' a pilot remarked after a raid on another city in the Leipzig area.

At Swinderby, Headquarters of No 5 Group, the morning of February 13 was taken up with final details and planning. The wing commander in charge of Intelligence was forced once again to bemoan their ignorance about the city and its defences: It was suspected however, that if Dresden was being used for the passage of troops and munitions to the eastern front, and that the flak defences might have been reinforced since the small attack by American bombers on January 16. The presence of army vehicles passing through the city prompted the Intelligence staff to warn that the convoys and trains might mount light anti-aircraft guns; these guns could be very dangerous for the Mosquito crews, circling across the city at altitudes below a thousand feet. At the station briefings a few hours later the seven thousand airmen would be told that the defences at Dresden were 'unknown'.

Toward noon the word came through from High Wycombe that meteorologists were predicting a stiff breeze blowing across the city from the north-west. But the teleprinter message added a warning that conditions were unfavourable, and the attack would succeed only if the timing was kept strictly to the minute: If the No 5

Group attack had to be delayed for any reason more than half an hour, the double attack would fail, because the second mission would be aborted.

A belt of strato-cumulus cloud was drifting across central Europe; there would be a gap in the cloud layer over Dresden, likely to last however for only four or five hours as it passed through. The skies over Dresden would begin to clear soon before ten o'clock in the evening. Within five hours, the cloud would return.

By noon Bomber Command had passed the executive order to every Group headquarters.

Altogether 245 Lancasters from No 5 Group were detailed to take part in the first attack, although one dropped out later.

The biggest contingent of aircraft for the second blow would be supplied by No 1 Group, with headquarters at Bawbry: over two hundred of the Group's Lancasters were asked for; No 3 Group despatched 150 Lancasters to Dresden, and the Canadian Bomber Group, No 6 sent sixty-seven; the remainder of the second attacking force was provided by the No 8 Group Pathfinders.[10]

Since Dresden was beyond the operational range of the Group's Pathfinder Mosquitoes, sixty-one Pathfinder Lancasters, many of them equipped with the latest version of the H_2S -radar equipment, were assigned to mark the aiming point for the second attack. It was expected that this new equipment, the H_2S Mark IIIF with the six-foot scanning dish, would provide sufficient ground detail on the radar screen to enable the crews to pick out topographical details more clearly.[11] Ten of these Pathfinder-Lancasters were to be provided by No 405 Squadron, the Vancouver Squadron of the R.C.A.F.; one of this squadron's most experienced crews was the only Pathfinder Lancaster crew not to return from the Dresden operation. The largest Pathfinder contingent was to be supplied by the veteran No 7 Squadron, with twelve Lancasters in the Pathfinder Force; No 635 Squadron provided both the Master Bomber and his deputy for the operation, as well as nine other Lancasters; the primary visual marker was supplied by No 405 Squadron; No 35 Squadron dispatched ten crews, and Nos 156 and 582 Squadrons nine crews each. As No 582 Squadron's records are incomplete, the composition of its Pathfinder crews in the final battle order for the attack on Dresden cannot be stated with certainty.[12]

In addition to the attacks on Dresden and Böhlen, Air Vice-Marshal Bennett had also planned for his force to deal with six other targets, including Bonn and Dortmund.[13] Two targets were spoofs only – with crews dropping flares but no bombs on them; at thirty minutes past midnight, however, just as the two Dresden formations of bombers were passing by to the north and south of Nuremberg, one attacking, one withdrawing, a force of Mosquitoes would deliver a twelve minute attack on that city; again, at two a.m., after the last Dresden attack had finished, four high-altitude Mosquitoes – including one of the new Mark XVI pressurised-cabin versions – from No 139 Squadron would each drop four five-hundred pound bombs on Magdeburg.[14]

As the German defence planners were well aware that Bomber Command had been ordered to concentrate to an increasing extent on Germany's frailest link, her oil production and reserves, it was planned to lead off the night's attack with a small, but positive attack on the synthetic oil plant at Böhlen, ten miles south of Leipzig and not far from Dresden.[15] The zero hour for Bohlen was set for ten P.M., fifteen minutes before the first blow fell on Dresden. This attack would employ the Pathfinders' marking technique known as Newhaven, and would be carried out by the Halifax Squadrons of Nos 4 and 6 Groups; 320 aircraft were detailed to attack Böhlen, rather over a third being from the Canadian No 6 Group. The Halifax bomber, four-engined like the Lancaster, and having a similar range, had however a considerably smaller bomb-lead, and was being gradually eliminated from the Command. As the attack on Dresden had been ordered as a 'very heavy blow' it was appropriate that the biggest possible all-Lancaster force should by despatched in order to maximise the load of incendiaries and high explosive. The raid on Böhlen can hardly be regarded as anything other than an elaborate spoof, in view of the unfavourable weather forecast for raids on small targets like synthetic oil plants.

It was intended that the first attack on Dresden, the real bloody business of the night, should begin at ten-fifteen P.M. and set the whole city on fire as a beacon for the crews of the second attack following three–and-a-quarter hours later. It would open with the Newhaven technique – flares laid by H_2S radar alone – coupled with

'sector bombing,' No 5 Group's speciality, if ground visibility allowed; otherwise they would fall back on sky-marking (using parachute flares).

The second attack would follow Bennett's standard 'Newhaven–II' technique. With zero hour for this second blow at one-thirty A.M. on February 14, his Blind Illuminator Lancasters – twelve in number not counting No 582 Squadron's contribution – would make blind runs across the city at 1:23 A.M., zero minus seven, relying on their H_2S radar alone, and drop sticks of flares across the approximate position of the aiming point. In an emergency they would adopt sky-marking instead.[16]

At 1:24 A.M., one minute later, the deputy Master Bomber would make a bombing run in his Lancaster high across the city, and having unambiguously identified the aiming point attempt to mark it with his six red target indicator bombs; the Master Bomber, orbiting the city to the north-east, would assess the distance between these red flares and the true aiming-point, and if they had gone wide he would attempt to drop his own red target indicators more accurately, using the first red flares as datum lines. If the deputy Master Bomber's flares were accurate, then the Primary Visual Marker would put down an load of red and green flares around them to reinforce the marking of the aiming point. The rank and file of Visual Centerer Lancasters, of which there were some twenty in the Dresden operation, would then attack in waves of three at a time, at three and four minute intervals, replacing the dying target marker flares of the preceding marker waves, and at the same time visually centring any wide marking shots.

Provision was also made for the event that cloud obscured the target; if the cloud was moderate, then thirteen Blind Markers (a number which does not include those of No 582 Squadron) would be used to drop green ground marking flares early on. The Master Bomber would check whether the glow was visible through the cloud; if not, then as a last resort, eight Blind Sky Marker planes (again not including those of No 582 Squadron) were laid on, carrying loads of parachute-borne flares of a kind that would emit a red light with green stars, a technique that Bennett, a native Australian, called 'Wanganui'; these would have to be released blindly on radar data alone to float above the cloud layers on their parachutes – a technique that provided a great and terrible beauty, but little bombing accuracy.

Had the cloud been so dense during the second attack on Dresden that sky marking was necessitated, without doubt the massacre would not have occurred; the weather over Dresden however was fine, and neither the Blind Markers nor the Blind Sky Marker bombers were called upon to release their flare loads by the Master Bomber.

The Master Bomber for the second Dresden attack, Squadron Leader C P C de Wesselow, a Canadian, was an experienced pilot with more than three tours of operations behind him. Once, in November 1944, he had been asked to act as Master Bomber during the ruinous attack on Freiburg im Breisgau, but he had declined as he had been to university there and had many friends in the area around the Gothic cathedral which was to be the aiming point; he had, however, never been to Dresden.

The executive order to bomb Dresden did not pass unquestioned: Soon after receiving it, the Pathfinder Group Commander felt bound to telephone back to High Wycombe to check that his staff had not misunderstood the order; when the order to bomb Dresden was confirmed, Air Vice-Marshal Bennett satisfied himself with a discussion of the aiming points allocated to his Group's marker force.[17] The Commander of No 1 Group later recalled that he and his senior staff were also 'a little surprised,' when they read the teleprinter message from Bomber Command.[18] Other Group commanders remember the distinctly reserved note in Harris' voice when he confirmed the order, and gained the impression that he was dissatisfied with the whole affair.

Bomber Command headquarters had issued by teleprinter identical brie5ng instructions to every bomber airfield. The wording, which has survived, makes odd reading now. The seven thousand British airmen were to be told that afternoon that they were about to attack Dresden, 'far the largest unbombed built-up area the enemy has got.' 'The intentions of the attack are to hit the enemy where he will feel it most,' the telex said; it then added words pregnant with other implications: 'And incidentally to show the Russians when they arrive what Bomber Command can do.'[19]

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In the early afternoon the Master Bomber, and his navigator were called over to the intelligence building of 54 Base for final briefing on the plan of attack.[20] The Base officers had searched in vain for one of the usual target maps prepared for attacks on German cities: target maps at this stage of the war were specially printed plans 24 inches, on which in grey, purple, and white the countryside and city were lithographed as an artist's impression of how they looked by night, with the stretches of water and rivers showing up a brilliant white amidst the black and grey masses of the cities and the purple shading and cross-hatching representing variously fields, woods, and open countryside; marked on these target maps were the main gun defence positions, the local airfields, and positions of German decoys. The target installation appeared in the middle of the target map, at the centre of a system of black concentric one-mile rings. The target installation itself would be printed on these target maps in a distinctive orange colour, whether it was the Krupps factory site at Essen, the Focke-Wulf works at Bremen, or the oil refinery at Gelsenkirchen.

For Dresden there was no such target map. Perhaps, as Sir Robert Saundby and Air Commodore HV Satterley suggested to the author, this was the conclusive evidence of the absence of any fundamental desire on Air Marshal Harris' part to destroy this city. Had Dresden figured on Harris' famous list of cities to be destroyed, then he would undoubtedly have ensured that adequate photographic cover had been made of the city with sufficient frequency to ascertain the nature of the target, its defence, and any decoy sites in the immediate neighbourhood. He would have plotted and fixed the position of the Dresden fighter squadrons on the air station at Dresden Klotzsche.

As it was, all that Bomber Command could provide to the Master Bomber and his deputy was a 'District target map: Dresden (Germany), D.T.M. No G.82/1'; this pathetic piece of equipment, with which the Master Bomber and his marker force were to identify and mark the aiming point for what was to be the climax of the strategic air offensive against Germany, was nothing more than a glossy aerial mosaic of Dresden dating back to November 1943, printed in black and white, made up from aerial-reconnaissance photographs of indifferent quality. It did however show clearly the points from which an attempt at marking Dresden might be made. Curi-

ously, a single black cross was printed on the target map on a building in the centre of the sector; this building was the police headquarters in Dresden, in bunkers below which the Saxon Gauleiter Martin Mutschmann had placed the underground command centre of his civil defence staff.

The wind was forecast to blow steadily from the north-west. If the smoke from the burning city was not to obscure the glare of the target-indicator candles burning on the ground, they must be placed to the windward of the target area. The most prominent feature of the city's topography which could be identified on this target photograph was the large cycle stadium to the west of the Old City. It was the central stadium of three built roughly in a line across Dresden. The cycle stadium selected, the Dresden-Friedrichstadt Sportsplatz, was about five hundred feet long and close enough to both the river and the railway lines to assist the marker force in searching for the stadium in what were likely to be conditions of minimal visibility.

The Marker Leader would have to place his single red marker clearly into this stadium; when the Master Bomber had checked its accuracy, he would order the remaining Marker Mosquitoes to back up on it with more red indicators until the whole stadium was well marked with red ⁶ares.[21] Then he would call in the 'Plate-Rack Force,' the main force of Lancasters dog-legging across the countryside a few miles to the south west to attack. They would fly downwind across the city, training their bombsights on the red glow of the marker indicators twinkling in the stadium, and after a timed overshoot which would vary from squadron to squadron and from aircraft to aircraft, they would release the bombs on the city itself.

As the Lancasters pilots were each briefed to fly on a different heading over Dresden, the result would be that the bombers would fan out over the city and drop their bombs in a cheese-shaped sector stretching eventually from close to the stadium to a maximum radius of 2,400 yards from the marking point. The target map for the first attack has survived. This sector marked on it included the whole of Dresden's Old City; this was to become the fire-storm area which would in turn serve as the beacon for the Lancasters of the second attack.

As we now know from the man who became director of Dresden's bureau of missing persons this was the area which became the main area of the inferno. Those who

made for the open air and the suburbs immediately after the first raid saved their lives. Those who waited for the second attack did not. 'There were areas in (Dresden-) Striesen and particularly around Seidnitzer-Platz where hardly anyone – if they waited for the second attack – escaped with his life.'

The Master Bomber and his navigator were instructed that the purpose of the attack was to hinder the railroad and other communications passing through Dresden. As they studied this 1·28 square-mile sector allocated for a precision saturation attack it ought have occurred to them that in fact there was not one railway line crossing the sector: nor one of Dresden's eighteen passenger and goods railway stations; nor did the sector include the Marienbrücke railway bridge across the Elbe, the most important bridge for many miles in either direction.

The only detail of the special briefing which stood out clearly in the Master Bomber's memory later, seventeen years after the attack, was that at the end of the briefing the Base Commander, an officer of Air Commodore rank, recalled that before the war he had been to Dresden once, and had stayed at a famous hotel on the Dresden Altmarkt, the large square in the centre of the Old City.

This square was in the very heart of the sector marked out for saturation in some eight hours' time; it appeared that the Air Commodore had been thoroughly and disgracefully rooked by the hotel staff on his departure. Now was his chance for revenge: he asked the Master Bomber to make sure that this building did not escape the general destruction. The call sign for the main force of bombers was also imparted: plate-rack. The zero hour on which all timing would be based was set for 10:15 p.m.

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By five-thirty P.M., with dusk already fallen, the eight marker crews had been briefed and each had drawn one indicator bomb from the bomb dump. Their aircraft had been checked, and extra fuel tanks strapped into position. A run out to Dresden was going to be stretching the Mosquitoes' operational range to the limit and extra fuel was being carried only at the expense of fewer marker bombs; there was no latitude for error in the marking.

As it was, if the Mosquito crews were to reach as far as Dresden, they would have no opportunity for making a wide detour to throw the enemy fighter controllers off the scent: at best they could feint toward Chemnitz, a few miles to the south-west of the target city, and then at the last moment alter course for Dresden. But even so the direct route across Germany was going to take the marker force across several areas well defended with flak.

By five-thirty too, the first squadrons of Lancasters from the No 5 Group airfields in the Midlands had taken to the air. By six o'clock the whole force of 244 bombers of the first wave was airborne, circling their airfields and setting course for the first route marker, and Germany.

[1] There is a total lack of information in any of the official histories regarding the mounting and execution of the triple blow on Dresden. The author had recourse therefore to the statements made by senior air officers who delivered the attack and especially the two RAF Master Bombers involved, Wing Commander Maurice A Smith and Squadron Leader C P C de Wesselow, who controlled the first and second attacks respectively. Wing Commander Smith made available to the author his flying log, the wire-recording transcript, the original target map, post-raid damage photographs, and other memorabilia relating to the attack.

[2] See in this connection *Royal Canadian Air Force Overseas, Sixth Year* (Toronto, 1946), p. 116; the Air Historical branch (Meteorological Records) also supplied information to the author.

[3] Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

[4] Maurice Smith, ibid.

[5] Information to the author from Edmund Kennebeck, formerly of 384th Bombardment Group, and General Carl A Spaatz.

[6] See Maurice F Smith's article on Loran in *R.A.F. Review*, Mar 1946.

[7] Information to the author from Wing Commander Maurice Smith and from his navigator Flight Lieutenant Leslie M Page.

[8] Information from Sir Arthur Harris to the author.

[9] E.g. communication from Flensburg city archives to the author.

[10] At the time the author interviewed him, he was chief editor of *Flight International*. Shown the heart-rending photographs of the carnage in the city, which he had never seen before, Smith went purple and showed true remorse.

[11] Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

[12] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35); see also *Royal Air Force 1939–1949*, vol.iii, p.269, *R.C.A.F. OVERSEAS, SIXTHYEAR*, P.116; and records provided to the author by Wing Commander Maurice Smith and by Flight Lieutenant Edward Cook of No. 3 Group.

[13] Dudley Saward, *Bomber's Eye* (London 1959).

[14] Information provided to the author in 1961 by the Air Historical branch.

[15] Information to the author by Air Vice-Marshal D C T Bennett.

[16] Information from Wing Commander M Sewell.

[17] *R.C.A.F. Overseas, Sixth Year.*

[18] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35).

[19] Information to the author by Air Vice-Marshal D C T Bennett.

[20] Information to the author by Air Vice-Marshal Buckle.

[21] This remarkable briefing telex for Dresden was used as an illustration in the two-volume internal monograph, *Review of the Work of Int I*, which Max Hastings was able to quote in his *Bomber Command*, 342.

[22] Based on descriptions by Wing Commander Maurice Smith and Air Vice-Marshal H V Satterley.

[23] These tactical details were supplied to the author by Maurice Smith, his navigator Leslie M Page, the Marker Leader William Topper, and the pilot of the first Flare Force Lancaster, Wing Commander F Twiggs.

The Plate-Rack Force Arrives

DUSK WAS ALREADY FALLING across England, and many crews must have looked at each other with uneasy anticipation as they eyed the cloud-heavy skies and read their weather forecast notes. These predicted icing at low altitudes, electrical storms, and ten-tenths cloud covering most of western Europe. Few of the airmen were relishing the prospect of a nine- or ten-hour flight across enemy-occupied territory in weather conditions like these: the only comfort was that the poor visibility and cloud cover over Germany might keep the enemy's night-fighters grounded.

The nine Mosquitoes of the first Marker Force had, bolted into their equipment racks, some of the most advanced electronic apparatus developed by western scientists. Their briefing instructions were unique in that if they got into trouble, they were to head back west; they were to avoid being forced down to the east of Dresden; and they were to destroy the aircraft utterly and completely. They were to land in German-occupied territory in preference to that overrun by the Soviet army.

At the same time as the Marker Force pilots drew their equipment and pyrotechnics for the attack, Farnborough scientists were checking for the last time a special camera fitted on January 26 into the bomb bay of the Mosquito of the Marker Leader Flight Lieutenant William Topper, who was also ex officio deputy Master Bomber. The camera had been equipped with a high-speed cartridge flash system, designed to take photographs of the target from very low level at one-second intervals during the marking procedure starting as the Marker Leader pressed his bomb release and continuing until the film was finished. It was expected to obtain precise confirmation of where the target indicator bomb had landed. For the first time the apparatus was to be used on Dresden.

At three minutes to eight on the evening of February 13, Mosquito KB.401 piloted by the Master Bomber Wing Commander Maurice Smith lifted into the air from his

the base at Coningsby. At 9:28 P.M. he passed out of range of the Gee navigation chains both in England and in France.

Darkness covered the Earth.

Smith's target-marking force took its own route out to Dresden – he decided they should fly at high altitude that night. Between fifteen and twenty thousand feet above north-west Germany a steady 104-knot gale was hastening the Mosquitoes towards their target. The navigators had to rely on their own navigation and the correctness of the wind forecasts to keep on track and avoid wandering across any heavily defended areas until they could pick up the faint signals from Loran, the long range navigation equipment. They also had an exact timetable to keep to. At ten P.M. the decoy attack on Böhlen was due to start, and a few minutes later the blind radar markers would be dropping their parachute flares and green primary markers over the approximate position of Dresden.

Only at 9:49 P.M. did the navigators finally pick up the Loran navigation system's transmission. The navigators required to pick up two of the beams for a position fix and, while the Master Bomber looked anxiously at his watch, his navigator checked the Loran screen trying to pick up the second beam; higher and higher the Mosquitoes were forced to climb, groping in the ether for the elusive radio beam. It was 9:56 P.M. In five minutes or so the flare force would be over Dresden. The Master Bomber's Mosquito was over twenty thousand feet up. Then the navigator was unable to get the second beam he needed to get a perfect 'cut', and when they were fifteen miles south of Chemnitz Wing Commander Smith decided to proceed to Dresden without it. The pilots of all nine Mosquitoes scanned the horizon for the tell-tale flares which would tell them that their calculations had been correct.

Meanwhile the big decoy attack was beginning on the synthetic oil plant at Böhlen, near Leipzig. It said something for the strength of Bomber Command at this time that it could mount decoy operations on this massive scale. Altogether 326 Halifaxes, thirty-four Lancasters and eight Mosquitoes took part, of which all but seven attacked Böhlen in a raid that lasted from 9:54 to 10:12 p.m.; one plane went missing.[1]

There was no moon as Wing Commander Smith's Mosquito force meanwhile neared Dresden. The whole of the countryside beneath seemed to be swathed in banks of starlit cloud. In fact the weather en route to the first targets of the night, Böhlen and Dresden, was roughly as had been forecast: the cloud cover was nine- or ten-tenths strato-cumulus, the cloud tops around nine thousand feet with some medium cloud at fifteen thousand feet. The cloud thickened to ten tenths over the whole route, rising to fifteen thousand feet in a frontal belt with heavy icing encountered between two and four degrees east and lowering again as the squadrons neared the target areas.[2] Above the seven thousand airmen the cold February sky was clear and starry. But, even as the Mosquitoes covered the last thirty miles towards Dresden, losing seventeen and eighteen thousand feet in a matter of four or five minutes, they could see the cloud clearing away exactly as had been forecast by the meteorologists at Bomber Command. Over Dresden itself, they would [5]nd only three layers of cloud: a thin layer of strato-cumulus from fifteen to sixteen thousand feet, another layer of cloud from six to eight thousand feet, and wisps of cloud at three and five thousand feet.

As the Window-aircraft of No 100 (Electronic Counter Measures) Group feinted against the Mainz–Mannheim area, and the cumbersome Halifaxes slipped past north of Koblenz en route to the target at Böhlen[3] the Master Bomber saw the edge of the horizon ahead rapidly broken by a string of vivid white lights, and a single ball of green fire hanging in the sky. The primary flare force of No 83 Squadron's Lancasters – which had the better navigation equipment – had arrived over Dresden and they were dropping the first proximity markers; their parachute flares were beginning to light up the whole countryside. The Primary Green, aimed and dropped by radar over the S-bend in the river Elbe, together with the attendant showers of magnesium parachute flares, was falling exactly over Dresden.

From now on the whole attack would develop with awesome military precision.

After the first wave of Blind Illuminator Lancasters, a second wave marched over the target area, dropping sticks of white flares; this time the bomb aimers relied on visual methods as well as the data on the radar screens.

That ended the 'Newhaven–II' part of the Pathfinder marking of Dresden. It was the turn of Smith's Mosquito marker force, the brilliant red marker bombs still clutched in their bomb bays, to swoop down on Dresden and mark out the cycle stadium on which the whole attack depended.

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Dresden lay within the ægis of the German First Fighter Division, whose headquarters was in the bunker at Döberitz, near Berlin. These fighter command centres were referred to by the airmen as 'battle opera houses'.[4]

'On entering', wrote one Luftwaffe night-fighter general, 'one was immediately infected by the nervous atmosphere reigning there. The artificial light made faces appear even more haggard than they really were. Bad air, cigarette smoke, the hum of ventilators, the ticking of the teleprinters and the subdued murmur of countless telephone operators gave one a headache. The centre of attraction in this hall was the huge frosted-glass panel on which were projected by light spots and illuminated writing the position, altitude, strength and course of the enemy as well as of our own formations. Each single dot and each change to be seen here was the result of reports and observations from radar sets, aircraft spotters, listening posts, reconnaissance planes, and from units in action'.

Seated in front of the map, several rows deep like in an amphitheatre, were the fighter controllers who issued the orders to their night fighters as the battle progressed. By February 1945 however the allied offensive against oil had so crippled the German fighter defences that a policy of the strictest conservation of resources was in operation. The latest raid had totally wrecked the synthetic refinery at Pölitz: the Luftwaffe's war diary recorded that in the whole of February they could now expect the refineries to produce only four hundred tons of aviation spirit. The quartermaster general recommended that all flying training be cancelled. Luftflotte VI, on the eastern front, was to get priority for all fuel allocations.[5] On this very morning, February 13, 1945 the Luftwaffe High Command directed Luftflotte Reich to give daytime priority to its jet squadrons, and night time priority to ground attack squadrons on the western front.[6] The night defences were virtually paralysed. Only

the best crews were permitted to fly, except in the severest emergencies, and it was more than a station commander's position was worth to order his aircraft up into battle on his own initiative without first receiving permission from Döberitz.

On the night of February 13 a dilemma faced the fighter controllers at Döberitz. Their information was worse than scanty; even their monitoring posts, which had once picked up the enemy's airborne radar and radio sets being tested during the mornings prior to full-scale attacks were now blinded by electronic 'curtains' thrown around the eastern coast of the British Isles and along the western front. The German early-warning chain along the Channel coast had long fallen into allied hands. German radar would detect the enemy bombers approaching low across the Allied lines only as they came within range inside the Reich. No 100 (Radio Counter Measures) Group had detailed 128 aircraft to support the night's operations laying a 'Mandrel' jamming screen from north to south behind the battle line for both Dresden raids; other planes from this Group carried out Window feints toward other cities, and executed missions with 'Jostle' – a high-power jamming transmitter – and signals investigation aircraft.[7] None of this made the German controllers' task any easier.

When the threat did materialise moreover on this cold evening of February 13 only 244 bombers at first emerged from behind the 'curtain' of electronic jamming thrown up by No 100 Group. The problem facing the controllers at Döberitz was not only to deduce where they were heading for, but also what Harris planned to do with the rest of his force? Bomber Command's decoy operations were already in full swing: Five Mosquitoes (out of six sent) had bombed Dortmund from 9:01 to 9:06 P.M. Fifty-two Mosquitoes (out of fifty-three) then bombed Magdeburg from 9:30 to 9:41 P.M. despite the prevailing ten-tenths cloud. (Three and a half hours later nine more Mosquitoes would bomb Magdeburg again, to divert attention from Harris' second strike force heading for Dresden.) Then the fighter controllers' attention was distracted to the south, as seven out of eight Mosquitoes sent to Nuremberg bombed the city from 9:59 to 10:15 P.M., even as the first Dresden raid was starting. So it went on for several more hours: sixteen Mosquitoes bombed Bonn from fourteen to twenty-four minutes after midnight. Seven Mosquitoes (out of eight) attacked

Misburg, near Hanover, from 1:30 to 1:47 A.M.; by which time the second force of bombers had completed its assault on Dresden and was returning home.

As the first Lancaster bomber formation assigned to attack Dresden headed deeper and deeper into Southern and Central Germany, followed shortly by the three hundred Halifaxes despatched to Böhlen, the threat became clearer; but the air-worthy fighter squadrons in central Germany were scrambled only when it was realised that the third, smaller formation of red arrows on the frosted glass screen in front of them – Maurice Smith's marker force – was not the usual nuisance raid on Berlin under way, but was in fact likely to pass over either Leipzig, Chemnitz, or Dresden at the same time as the big bomber stream. At this point the controllers decided that the immediate threat was to one of the Saxon cities. Even so, none of the controllers considered an attack on Dresden likely; right up to the last few moments the population in Leipzig alone was being warned by the radio to take cover.

In Dresden the sirens had not sounded the usual preliminary air raid warning. The first that the people heard was the full alarm, suddenly shrieked by the sirens at 9:55 P.M.[8] At the same moment the order reached the airfield at Dresden-Klotzsche – which is now Dresden's commercial airport – to scramble the night fighter squadron based there, V/NJG.5.[9] By then it was too late, and the target marking was about to begin. The A-crews on this airfield were finally scrambled at the same time as the Mosquito markers were at twenty thousand feet picking up the Loran beams. The A-crews were the eight or ten most successful crews of the squadron. One of the B-crew Me.110 night-fighter pilots, a twenty-five year old sergeant pilot, described February 13 in his diary as 'his saddest day as a night-fighter pilot'. At midday he had tested his aircraft. The SN-2 night interception radar device checked out okay. 'In the evening,' he wrote in his diary, 'we received an alarm, the first of the day. Naturally it concerned only the A-crews. The take-off order came much to late.' It would the Messerschmitt twin-engined night fighters over half an hour to gain attacking altitude.

The light anti-aircraft gunners at the airfield became increasingly trigger-happy as the sounds of the approaching armada of bombers echoed from beyond the horizon, and when the airfield's one searchlight trapped and held an aircraft circling at quite a

low altitude, the gunners all opened up to it. The plane crashed in flames. It was the anti-aircraft gunner's only success during the night: one of the five A-crew Me 110's piloted by another young sergeant pilot.

Thus the Saxon capital girded itself against the attack. In the whole of Germany only twenty-seven night fighters had taken off to ward off the most destructive air raid in history.

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Three of the Lancasters of No 5 Group's two Pathfinder squadrons had been equipped as special Link aircraft; their task was to communicate the instructions of the Master Bomber in Morse code to the bomber force if the speech transmitter equipment installed in the bombers should fail or be jammed. Sometimes one of the bomber wireless operators would switch on his VHF set by accident, jamming communications between the bombers and the Master Bomber; at other times the Germans themselves were responsible. The Links also acted as a means of communication between the Master Bomber and the group's base in England. Corrected weather forecasts and wind estimations were exchanged between the Master Bomber and the base; on special operations the controller might be required to make a snap judgement of the success of the raid and pass it back to England even as he was still over the target.

On the Dresden raid, the three Link Lancasters were all provided by No 97 Squadron. In Link 1, piloted by a Flight Lieutenant, a special wire-recorder had been installed to make a permanent record of the progress of the attack; the record would be produced at the post-raid assessment during the following days. R.A.F. Bomber Command was still eager to learn from its mistakes, and to develop and extend its procedure and techniques.

As the Master Bomber's Mosquito was still approaching the target area, he switched on his TR. 1143 VHF speech transmitter, breaking his radio silence was broken over Germany.

'Controller to Marker Leader: How do you hear me? Over'.

The Marker Leader, Flight Lieutenant Topper, replied that he could hear the Master Bomber clearly 'at strength five'. A similar inquiry of the first Link aircraft recorded that communications between Link 1 and Master Bomber were 'loud and clear'. Thus the whole operation would be directed in plain speech. Code-words were only used for prime orders like 'Recall', or 'Mission Cancelled'. The Master Bomber required no acknowledgement except for the order 'Go home'.

The cloud was still quite apparent over the target area; the Master Bomber called up the Marker Leader once more: 'Are you below cloud yet?'

'Not yet,' replied the Marker Leader. He too had just lost nineteen thousand feet in less than five minutes; the navigator in the Master Bomber's aircraft had suffered severe discomfiture with ear pains during the descent.

The Master Bomber waited, asked the Marker Leader whether he could see the Primary Green dropped by No 83 Squadron, then said: 'Okay, I can see it. The cloud is not very thick.'

'No', confirmed the Master Bomber. 'What do you make the base of it?'

After a moment the Marker Leader replied 'The base is about two thousand five hundred feet.'

It was time for the low-level marking procedure to begin. The flares were burning brilliantly over the city now; the whole town looked serene and peaceful.

As his Mosquito circled the city, the Marker Leader carefully inspected the target: rather to his surprise he could see not one searchlight, not one light flak piece firing. Cautiously he again circled round, picking up bearings. 'As I flew across the city,' he now recalls, 'it was obvious to me that there was a large number of black-and-white timbered buildings; it reminded me of Shropshire and Hereford and Ludlow. They seemed to be lining the river which had a number of rather gracefully-spanned bridges over it; the buildings were a very striking feature of the city's architecture.'

In the marshalling yards of Dresden-Friedrichstadt he could see a single locomotive puffing industriously away with a short train of boxcars. Outside a large building which he identified as the central station – he had spent the afternoon at Woodhall Spa studying maps and aerial pictures of Dresden – there was another plume of

smoke where a locomotive was struggling to pull a passenger train with some white coaches out into the open air.

Then it was time for Topper to begin his first run up the marking point. Over the central station he was still two thousand feet up. He began to dive steeply, keeping a wary eye on the altimeter: The target indicator bombs were set to burst barometrically at seven hundred feet. If released below that altitude, they would probably set the little wooden plane on fire.

His eyes tracked the railway lines out of the central station, and round in a right-hand curve toward the river. Just to the left of the railway bridges lay his marking point, the cycle stadium; once in position to commence his marking run, he called out into his microphone 'Marker Leader: Tally-ho' to warn off other markers who might otherwise be commencing marking runs. From two thousand feet the Mosquito dived to less than eight hundred, opening its bomb-doors as it entered upon the straight run-in to the aiming point. He switched on the automatic camera. The first flash cartridge fired as the lens was pointing at the Dresden-Friedrichstadt Krankenhaus, the biggest hospital complex in central Germany. In its lens the camera trapped the picture of the thousand-pound target indicator bomb slipping out of the bomb bay, the finned canister silhouetted menacingly on top of a small oblong building in the hospital's grounds, the Catholic Old People's and Sick People's Institution.[10]

Topper briskly levelled out while maintaining a high speed as he did not know whether there was any flak to come up and as the flare illumination of both Dresden and his aircraft was uncomfortably strong. The camera flashed a second time: The bomb was a dark fleck above the oval of the cycle stadium. One of the Mosquito pilots who had not been warned of the new camera technique shouted an involuntary 'My God, the Marker Leader's been hit' to his navigator. But at the same moment, Topper's marker bomb burst into a cascade of red pyrotechnics. The Mosquito thundered across the stadium towards the river at three hundred miles an hour, its camera was still flashing regularly once per second. The third flash was over the hospital's railway siding; a hospital train from the eastern front was unloading there: now it was recorded for all time on a strip of film before the bombers arrived to blast

the sidings from the map. The fourth flash showed the Marker Leader that he was already across the River Elbe; a cotton-wool plume of steam coiled up from a single saddle-tank locomotive puffing along the railway running beside the Japanese Palace Garden.

'Marker Two to Controller: Tally-ho!' The second Marker Mosquito was already following the railway lines round, ready to estimate the overshoot of the Marker Leader's red indicator bomb.

At the same time, the Master Bomber checked the three Dresden stadiums on his District Target Map, and announced grimly over the radio to Flight Lieutenant Topper: 'You have marked the wrong one.'

For a moment the VHF radio recorded only uncomfortable breathing. Then there was a relieved 'Oh no, that's all right, carry on.'

The Marker Bomber could clearly see the red marker flare burning in a brilliant crimson pool not far from the stadium.[11] 'Hello Marker Leader,' he called. 'That target indicator is about a hundred yards east of the marking point.'

This initial marking shot was extraordinarily accurate. When one remembers that during the first night of the Battle of Hamburg in 1943, the markers of the official Pathfinder Group were anything from half a mile to seven miles wide of the aiming point, also using a visual technique, the fundamental difference between the standards achieved by the two bomber groups can be judged.

The VHF radio waves above the doomed city were lively with crackled orders and acknowledgements. 'Controller to Marker Leader: Good shot! Back up, then; back up.'

'Marker Leader to all Markers: Back up, back up.'

'Marker Five to Master Bomber: Clear?'

'Marker Two to Master Bomber: Tally-ho.

The time was six-and-a-half minute past ten. Zero hour was still nearly nine minutes away, but the target marking point was clearly and unambiguously marked. There remained only for the other Mosquitoes to heap their red marker bombs onto the one already burning to reinforce the glow.

The only thing which still concerned the Master Bomber was the visibility of the target-indicator bombs (T.I.s) through the thin layers of cloud, especially for the Lancaster bombers which had been stacked in the top altitude band around eighteen thousand feet; the Lancaster squadrons had been briefed to approach the marking point a different altitudes to avoid collisions as they fanned out over the city. A specially-equipped Lancaster of No 97 Squadron had been positioned at eighteen thousand feet over Dresden. This was Lancaster Check 3.

'Controller to Check 3: Tell me if you can see the glow.'

'I can see three T.I.s through the cloud,' replied the Check Lancaster. Thinking that the Check had reported seeing only 'green T.I.s' the Master Bomber, queried this. 'Good work. Can you see the reds yet?'

'Check 3 to Controller: I can just see reds.'

One after another two more Marker Mosquitoes tally-ho'd and placed their reds on the cycle stadium. Remembering that the Mosquitoes only carried one marker each, the Master Bomber warned them to 'take it easy'; they might be needed later on.

It was seven minutes past ten, zero minus eight. The marking had proceeded better than expected. 'Controller to Flare Force: no more flares, n*o more flares.*'

One more Mosquito called out its intention of marking the stadium. A trifle impatiently the Master Bomber called out to all the markers, 'Hurry up and complete your marking and clear the area.'

A brilliant concentration of red markers was now burning around the stadium, each marker a pool of burning candles, scattered over an area of several hundred feet, far too numerous to be extinguished even if there were any Germans brave enough to venture into what must seem to them the very bull's-eye of the target area.

In Dresden the *Horizont* flak transmitter was warning: 'The formation of nuisance raiders is orbiting from Martha–Heinrich 1 to Martha–Heinrich 8. The first waves of the bomber formations are at Northpole–Friedrich, now Otto–Friedrich 3. Their heading is East-North-East.' MH1, MH8, OF3 – these were the appropriate squares of the grid overprinted on the flak commanders' plotting charts. In their excitement

however the speaker had confused the 'nuisance raiders' – in fact the nine Mosquitoes of Smith's marker force – with the heavy bombers, and vice versa. Moments later, it dawned on the flak commander that the 'nuisance raiders' were Pathfinder Mosquitoes arriving from the Chemnitz area, and that the bomber formations were approaching over Riesa from the north-west; at once a signal was passed to the local civil defence Control Room in the basement of the Albertinum building.[12]

The Master Bomber made one final check with the Lancaster in the top altitude band: 'Can you see the red target indicators?'

The reply was satisfactory. 'I can see the green and the red T.I.s.' It was nine minutes past ten, zero minus six. The marking was complete, and the Master Bomber wanted the attack to begin at the earliest possible moment; his tanks would only allow him to stay over the target for another 12 minutes. He wanted to witness the commencement of the attack and ensure that all went well.

It was at this moment that the Dresden people, by now cleared from the open spaces and listening apprehensively in their basements and cellars to the sound of the light Mosquitoes racing back and forth across the rooftops of the Saxon capital, were informed for the first time the nature of the real threat to their city. At 10:09 P.M. the ticking clock which replaced cable radio broadcasts during alerts in Germany was sharply interrupted. The unmistakably Saxon voice of a very agitated announcer broke out of the loudspeakers: '*Achtung, Achtung, Achtung!* The first waves of the large enemy bomber formation have changed course, and are now approaching the city boundaries. There is going to be an attack. The population is instructed to proceed at once to the basements and cellars. The police have instructions to arrest all those who remain in the open…'[13]

In his Mosquito three thousand feet above the silent city the Master Bomber was repeating over and over into his VHF transmitter: 'Controller to Plate-rack Force: Come in and bomb glow of red T.I.s as planned. Bomb glow of red T.I.s as planned.'

The police headquarters logged the first bombs as falling at 10:09 p.m.[14]

The last report from the civil defence Control Room was a shrill: 'Bombs falling on the city area! Comrades, keep sand and water handy!' But still the sirens were not sounded, and the citizens were not warned to take cover.

The time was exactly 10:10 and thirty seconds.

The Marker Leader called up, asking: 'Can I send the Marker Force home now?', but it occurred to the Master Bomber that the Germans might well have a decoy site in the neighbourhood.

'Controller to Marker Leader: If you stick around for a moment, and keep one lad with yellow, the rest can go home'.

'Okay, Controller. Marker Leader to all markers: Go home, go home. Acknowledge'. One after another Markers – Three, Four, Five, Six, Seven and Eight – acknowledged, 'Going home'.

The Marker Leader spotted a circling aircraft with its green and red navigation lights on. This was asking for trouble over enemy territory. 'You have your navigation lights on', he warned the aircraft. The lights did not go out. It was probably one of the German Me.110's still circling to gain height; but the Mosquitoes were completely unarmed, and short of ramming the fighter, there was nothing that anybody could do about it.

The Master Bomber was still broadcasting to the main force bombers 'Controller to Plate-rack force: Bomb concentration of red T.I.s as planned as soon as you like.'

The guns defending Dresden were still silent. Not even a muzzle flash was to be seen. It began to dawn on the Master Bomber, Wing Commander Smith, that in fact Dresden was undefended. He could safely order the heavy four-engined bombers down to attack from lower altitudes, thereby ensuring a more even saturation of the sector marked for attack. He called up the Link 1 Lancaster which was in constant Morse contact with the bombers. 'Tell the aircraft in the top height band to come down below the medium cloud,' he ordered.

'Roger'. By 10:15 P.M. the bombs had started falling on Dresden. The Marker Leader, Flight Lieutenant Topper, called the Master Bomber's attention to the characteristic heaving explosions of the huge four- and eight-thousand pound high-explosive blockbusters, designed to smash the windows and rip off the roofs of the highly combustible Dresden Old City buildings, some of them dating back over a thousand years. A vivid blue flash split the darkness as a stick of bombs, falling wide

of the target sector detonated; the crews decided later that an electricity installation must have been hit.

'Marker Leader to controller: The bombs seem to be falling okay now. Over!'

'Yes, Marker Leader. They look pretty good.'

'Hello Plate-rack Force. That's good bombing. Come in and aim from the red T.I.s as planned. Careful overshoot, somebody! Somebody has dropped very wide.'

'Controller to Marker Leader: Go home now, if you like. Thank you.'

'Hello Controller: Thank you, going home. Good work Plate-rack Force. That's nice bombing.'

The wire-recorder continued to run, recording this banal, almost bland dialogue of death. Squadron by squadron the Lancasters ran up to the marking point on the cycle stadium, each aircraft approaching the brilliant red glow on a different heading, some heading due south, others almost due east, fanning out across the blazing Old City. The whole of the cheese-shaped sector was a mass of twinkling fires and, here and there, the lazy, brilliant eruption of the big bombs wrenching out doors and windows, churning up the debris, and splintering the buildings. Master bomber Maurice Smith could see from his Mosquito, circling the city, that the target sector had been truly saturated; rashes of glittering fires spread across the city as the hundreds of thousands of incendiary bombs ignited with a searing flame.[15]

By eighteen minutes past ten, the patterns of bombs were covering the whole sector, but one or two tell-tale splashes of light were visible in the darker areas outside too. The Master Bomber saw these bomb loads go down wide, and he warned the rest of the force of Lancasters: 'Hello Plate-rack Force: Try to pick out the red glow. The bombing is getting wild now. Pick out the red glow if you can, then bomb as planned.'

He had another three minutes in which he could stay over the city. In the near distance he spotted something else beginning to glow – the red and yellow glare of a German decoy site being vainly ignited. The thing the Germans never realised when they designed decoy sites was that a burning city from the air was an untidy, turbulent mass of billowing smoke, bursting high explosive charges, and irregular patches of myriads of incendiaries; the German decoy sites were built in neat rectangles, the

burning 'incendiaries' tidily scattered at regular intervals across the ground. Nevertheless, it was the Master Bomber's duty to ensure that no bomb loads were needlessly drawn astray to decoys. On this occasion he did not consider that the decoy was worth wasting a yellow cancellation-marker bomb on; he merely broadcast to all crews of the remaining Plate-rack Force bombers: 'Decoys at twelve to fifteen miles on a bearing three hundred degrees true from town centre.' A minute later he repeated the warning: 'Complete bombing quickly and go home. Ignore the decoy fires.'

At twenty one minute past ten on the night of February 13, 1945, the Master Bomber called up the Link 1 Lancaster aircraft for the last time, as he turned his own Mosquito on to the new bearing which would take him home.

'Controller to Link 1: Send home: TARGET ATTACKED SUCCESSFULLY STOP PRIMARY PLAN STOP THROUGH CLOUD STOP.'[16]

The Link Lancaster repeated the signal's wording, then flashed it back to England by telegraphy, where within minutes it had been passed on to the desk of the commander-in-chief, Sir Arthur Harris, in the underground headquarters of Bomber Command.

[1] Appendix: Summary of Operations against Germany on Nights of 13th/14th and 14th/15th February 1945 (Records of RAF Bomber Command, PRO) (Author's microfilm DI–35).

[2] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO) (Author's microfilm DI–35)

[3] Ibid.

[4] Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

[5] Adolf Galland, *Die Ersten und die Letzten* (Bonn, 1955); and information to the author from Major Hans Kuhlisch.

[6] Kriegstagebuch OKL Führungsstab Ia, Feb 12, 1945 (NA film T321, roll 10).

[7] Ibid.

[8] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO) (Author's microfilm DI–35).

[9] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives); first published by Walter Weidauer in *Inferno Dresden* (Dietz Verlag, East Berlin, 1966), 2nd edition, with an account of how a Frau Jurk of Dresden had found it in the spring of 1965 among the papers of her late father-in-law Max Jurk, whose initials ('Ju.') are on the document as author (pp. 127f.). – Thierig, born Apr 2, 1890, went to Munich in 1949 after his release from communist custody (Author's microfilm DI–35).

[10] Hermann Kinder, of Bielefeld, kindly provided to the author excerpts from his diary as a fighter pilot that night.

[11] All such quotations are from 'Transcript of Wire-Recorder, Operations Night 13th/14th February 1945,' which was kept for demonstration purposes after the triple blow and provided to the author by Wing Commander Smith. Timings are from the logsheet of the navigator in Smith's Mosquito, Flight Lieutenant Leslie M Page, furnished to the author.

[12] The photographs taken by the Marker Leader aircraft bear the official numbers (Coningsby) 2665–2668, and were provided by William Topper to the author.

[13] Wire-recording transcript, and Wing Commander Smith's recollections in Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

[14] The announcements were noted down by Götz Bergander, of Berlin; he was a young flak gunner at the time.

[15] *Aktuell*, Munich, 1962, No. 3.

[16] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives).

[17] Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

[18] Wire recording transcript.

A City on Fire

THE MEASURE in which the success of this first attack on Dresden by No 5 Group in the late evening of February 13, 1945 was aided by the accuracy of the weather predictions over the target area can be judged by comparison with the numerically larger attack – 320 Halifaxes – on the synthetic oil plant at Böhlen, just one hundred miles west of Dresden.

The weather section at Bomber Command headquarters had predicted that the rift in the cloud layers over western and central Europe would give clear skies over Dresden only for four or five hours. But even as Maurice Smith's marker force had swept into Dresden from almost due west, they were climbing down over the edge of a precipice of cloud for the last thirty-five miles. Over Böhlen itself, crews reported layers of strato-cumulus clouds. Only the faintest glow of the Pathfinder markers could be seen, and they were widely scattered. Moreover the Germans ignited an array of dummy target indicators several miles away, and the Halifax crews, not being able to distinguish ground detail, were to a large extent misled. The Master Bomber for this raid warned against the decoys and ordered the crews to bomb only the glow of the markers on the ground, but the marking was scattered and the bombing ineffectual.[1] The bomber squadrons, from Nos 4, 6, and 8 Groups, dropped 787·5 tons of high explosive and 1·3 tons of fire bombs but few fell on the oil plant.

Had the same cloud layers been over Dresden just fifteen minutes later when the No 5 Group bombers arrived, the first attack would probably have failed to achieve the degree of concentration in space required to start the fire-storm.

The records kept by the meteorological post at the local fighter airfield at Dresden-Klotzsche confirm that not only was the initiation of the attack nearly impossible but the cloud banks were equally close on the heels of the attacking force at the

end of the second blow: thus although at seven p.m. there had been only one-tenth cloud below ten thousand feet, within ten minutes of the end of Harris' second blow on Dresden, at two a.m. on February 14, cloud was obscuring ten-tenths of the sky both above and below ten thousand feet.[2] Bomber Command had to fit two heavy air raids into this accurately forecast break in the cloud cover over Dresden, with an interval of some three hours between them. Wing Commander Maurice Smith confirmed later that if the first raid on Dresden had been timed ten or fifteen minutes earlier, the double-blow would have failed; the Lancasters could not have been kept orbiting for fifteen minutes waiting for clouds to clear.

Thus close was Bomber Command to being cheated of its climactic success in its area offensive against Germany; and, equally, thus close were Britain's post-war enemies to being robbed of one of their greatest propaganda indictments against her.

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By ten-thirty p.m. on February 13, the whole of the first Dresden force was making its way back to England. Of the 245 Lancasters and nine Mosquitoes of No 5 Group which had taken off, 243 had attacked Dresden between 10:03 and 10:25 P.M.[3] The raid had been so concentrated in time and space that one of the Lancasters had been destroyed by the bombs dropped by another Lancaster above, the only plane lost in this phase of the attack.[4] 'The first force achieved a fine concentration,' reported the British operational analysts, 'and left fires visible for one hundred miles.'[5] The ground defences estimated that as many as five hundred planes had taken part in this first phase; deciding at 10:35 P.M. that the bombs had stopped falling they ordered the preliminary all clear sounded five minutes later.[6] With their mechanisms shattered however, and all the power lines down, few sirens stirred the stricken city's infernal air.

The first wave of bombers was withdrawing – going home. Ten minutes after the first attack had ended the No 5 Group force abruptly ceased Window-ing, and by losing height rapidly until they were flying at a mere six thousand feet they effec-

tively slid under the horizon of the German panorama radar chains. Only as they approached the Allied lines at a point a few miles south of Strasbourg did they begin a slow climb back to fifteen thousand feet, their withdrawal from here on being covered by the new bomber stream coming in over France and Southern Germany – the force of 529 Lancasters due to open the second attack on Dresden at one-thirty a.m. Since midnight, the crews of these bomber formations had been cascading Window into the air in copious amounts, while the aircraft steadily climbed over Allied-held territory, finally crossing the front lines at a point some twenty miles north of Luxembourg.

This was a veritable bomber armada, carrying a huge bomb load. At the head of the bomber stream flew the Blind Illuminator Lancasters, their bomb racks charged with high-explosive time-bombs and parachute flares – hooded magnesium lanterns set to ignite at twenty thousand feet, to light up the countryside for the Deputy Master Bomber to identify the target and to mark the aiming point. In case the cloud was too dense for the glow of the 'Paramatta' ground-marker flares – as said, the Pathfinder chief Bennett was an Australian – to penetrate them, eight further Pathfinder crews had been detailed to stand by to drop parachute 'Wanganui' sky-marker flares, again on instruments and radar: they were the Blind Sky Markers; all eventualities had thus been provided for.

At regular three or four-minute intervals in the bomber stream flew some twenty Visual Centerer Lancasters of the Pathfinder force, who were to aim their target indicators visually into the centre of patterns of flares dropped by previous marker crews; in this way the attack could be tightened up and prevented from sprawling.

In the van of the bomber stream flew squadrons of Mosquito aircraft equipped for night fighting and for strafing German airfields. Infiltrated in the five-mile wide stream were the Liberators and Flying Fortresses of No 100 (Radio Counter Measures) Group, each carrying two trained signals specialists for duties of a nature which even the other members of the aircrew were not permitted to ascertain, and loaded with tons of the metal-foil Window strips.

If the bomber force despatched to deliver the second blow to Dresden that night was impressive, the mood of their crews was not jubilant. At their briefing some had

learned, if only after questioning, the nature of the target they were to attack. On some air stations the briefing had passed without comment, and the young bomber crews accepted what their briefing officers told them. On other stations where a chance question had elicited further information about Dresden, there were open signs of uneasiness. The trouble had started for most crews when the station commander had peeled away the brown paper covering the target maps and routing plans on the wall facing them at the end of the briefing huts. The first reaction of most of the crews was awe at the depth of penetration into Germany. The captains and navigators exchanged glances and calculated roughly the duration of flight to Dresden: It would be about ten hours. This would be stretching the limits of the Lancaster aircraft; there seemed to be little point in going such a long way into enemy territory to attack what seemed to be such an unimportant target. Many of the aircrew voiced wonder and surprise that the Russians were not being asked to attack the city themselves, if it was so 'vital' to their front.

The misgivings of many of the aircrews could be set aside by the assurances of the intelligence officers. The aircrews of No 3 Bomber Group were informed, 'Your Group is attacking the German Army Headquarters at Dresden.' Some crews of No 75 Squadron even remember Dresden's being described as Fortress city. Crews were briefed that they were attacking Dresden to 'destroy the German arms and supply dumps.' They were given to understand that it was one of the main supply centres for the eastern front. In No 1 Group the emphasis appears to have been laid on Dresden's importance as a railway centre. The crews were told that their designated aiming point was the railway station. The dossier prepared by the headquarters of No 6 Group, the Canadian Group, described how 'Dresden was an important industrial area, producing electric motors, precision instruments, chemicals, and munitions.'[7] In few of the squadrons were the airmen warned of the presence of several hundred thousand refugees in the city, or the prisoner-of-war camps containing 26,620 prisoners of war in the suburbs. The imagination of local briefing officers at some stations seems to have been given free rein; at one air station the crews were told that they were attacking a Gestapo Headquarters in the centre of the city; in another, a vital ammunitions works; in yet a third, a large poison gas plant.[8]

For the first time all crews were issued with Perspex envelopes containing large Union flags embroidered in Russian with the words 'I am an Englishman.' While this may have upset many of the British Empire crews – many Canadians, and every Australian squadron in the force was taking part in the night's operation – it was the best that Bomber Command could offer the airmen for their personal security in the event of being forced down behind Russian lines. They were warned that the simple Russian soldiery had the habit of shooting strange militia men on sight, whether decorated with the English Union flag or not.

The briefing ended with full instructions on the Pathfinder marking techniques being used, the call-signs for the Main Force and Master Bomber, and general warning. The crews were advised by bombing leaders to identify the target-indicator flares with care, not only because of German decoy markers, but also because Dresden would 'probably burn' and the markers might be swamped by the other fires. The call-sign for the Master Bomber was given as CHEESECAKE, *for the Main F*orce of Lancasters as PRESS-ON; when the latter call-sign was announced, there was an uneasy ripple of laughter – it was an R.A.F. expression which summed up the current attitude.[9]

With the Dresden raid some standard details of other briefings were missing. When a squadron was briefed for what they regarded as a worthwhile target, they normally raised a cheer when the station commander mounted the rostrum to speak, even when the target was a tough one like Hamburg or Berlin. With Dresden the cheers were absent. With this target there seemed to be a definite, perhaps a studied, lack of information on the city and the nature of its defences. Encouraged though they were by talk of a Gestapo headquarters and poison gas plants, many of the crews were distinctly unhappy when they heard about the refugees. When one of the squadrons of No 100 (Radio Counter Measures) group was briefed, the intelligence officer even suggested, probably not seriously, that the very object of the raid was to kill as many as possible of the refugees known to be sheltering in the city, and to spread panic and chaos behind the eastern front. This remark, however, did not meet with the jocular reception he had expected; normally it was the practise of bomber crews to take along bits of concrete, steel, and old bottles to drop on enemy villages and

towns as they passed over. Unanimously they voted to show their disapproval for this mission by omitting this practise for the night· One French pilot based on No 635 Pathfinder Squadron was on the verge of tears: he had studied at Dresden's university and had left many good friends there on the outbreak of war; unwilling however to incur the despised L.M.F. stamp in his log book which standing down would entail ('lack of moral fibre') he took off with the others when the time came for the force of 529 Lancasters to take to the air.

This kind of reception for the night's operation was however by no means general in Bomber Command; in other stations, especially those where the real nature of the city had been obscured, the reaction 'was the usual light-hearted chaff, probably covering their concern at the distance of the target' as one bomb-aimer described it.

Unlike most of the air raids on German targets at this stage of the war, the force was carrying about seventy-five percent incendiaries. While it had been found profitable earlier in the war to employ such a large proportion of incendiaries, by 1945 few of the German cities had not already been attacked, bombed, and destroyed; in the Ruhr there was hardly a city where hundreds of acres had not been turned into an incombustible heap of rubble. For this reason bomb loads had included ever larger proportions of high explosives, as the economic value of incendiaries dropped.

Dresden was however virtually a virgin city, and the full 'Hamburg' treatment could be employed against it: first the windows and roofs would be wrenched apart by high-explosive bombs; then the incendiaries would rain down, setting fire to the houses and whipping up whirlwinds of red hot sparks; these in turn would rage through the wrecked roofs and smashed windows, setting 5re to curtains, carpets, furniture and roof timbers. The waves of bombers in this second attack would have to carry only sufficient high-explosive bombs to spread the fires and keep the heads of the fire fighters down. Thus the bomb-loads of No 3 Bomber Group were divided into two types: the bombers of one wave each carried a four-thousand pound blockbuster, now commonly called a 'cookie', and five 750-pound clusters of incendiaries; those of the second wave carried one five-hundred pound general purpose high-explosive bomb and the 750-pound clusters. In No 1 Group the bomb loads were

slightly different, the incendiary bombs being more usually dropped from small bomb containers – metal trunks in the bomb bays, in which the 21-inch long hexagonal four-pound thermite incendiaries were stowed, and from which they were released into the wind over the target; these showers of small bombs presented a danger to other aircraft over the target area, and possessed no ballistic properties which enabled them to be accurately aimed.

Nevertheless, for targets like Dresden, where the purpose was to get as much of the city on fire as possible, they achieved as useful random effect. The No 1 Group aircraft were carrying seventeen of these trunks and one two-thousand pounder each; another variation was one four-thousand pounder with twelve trunks of incendiaries. Altogether, 650,000 incendiary bombs were in the bomb racks and small bomb containers of the Lancasters attacking Dresden. None of them seems to have been carrying 'J-bombs' – the 'phosphorus bombs' which would become a feature of propaganda after the war. The whole force had been tanked up with maximum fuel loads, 2,154 gallons of high-octane petrol each. After the engines had been tested and run up, and the bombers had taxied from their dispersal areas to the end of the runways, the bowsers were waiting to top up the tanks once again. For two hours after taking-off there would be the sickly smell of petrol mingling with the smell of Glycol anti-freeze inside the aircraft.

By eight p.m. the whole force was airborne. This second attacking force was twice was powerful as the first. It consisted of 550 Lancasters in squadrons from Nos 1, 3, 6, and 8 Groups. To cover the approach of this second bomber armada, the Windowing ('chaff') aircraft of No 100 Group simulated for the German radar screens a bomber force bearing down on the Cologne–Koblenz area.

As the bombers approached central Germany, the cloud cover was clearing. The bomb aimers, crouched in their nose turrets, could see between three- and seven-tenths variable drifting cloud patches far beneath them, the cloud tops rising to six thousand feet. There was still no moon. At the altitude at which the bombers were flying the route was clear all the way to four degrees east, where a frontal belt with cloud, rime, and weird electrical phenomena developed. The blue flames of St. Elmo's fire, static electricity, played along the leading edges of the wings and around the

spinning airscrews. In many aircraft the cold was so intense that the automatic pilots ceased to function, and faced the pilots with hours of flying on manual control.

Mercifully, between the German frontier and the target there was a thick bank of cloud which grounded many of the enemy's night fighters. Soon after passing to the south of the Ruhr the defences there opened up; many crews saw the flak barrage thrown up over the Ruhr cities. The first of the feints laid on by the Pathfinders was under way – a big attack on Dortmund by Mosquitoes of his Light Night Striking Force. Other spoof attacks were scheduled for Bonn, Nuremberg, and Magdeburg as the night wore on. Once again the Liberators of No 100 Group, their crews cascading Window into the air, patrolled a line at 8·5-degrees east, generating a screen which the German radar system could not penetrate.

At Chemnitz the banks of cloud rolled apart. Chemnitz was not even marked on the Captains-of-Aircraft maps used by the pilots; perhaps for this reason some were careless about skirting the flak areas there. As the bomber stream, by now partially scattered and far beyond the range of Gee, *emerged from the* cloud formation and passed by the heavily defended city with its Siegmar assembly plant for Mark IV tanks and engines, the flak batteries along its whole length began to fire. Several Lancasters were punctured by flak but managed to complete the flight to Dresden.

In the distance the airmen could clearly see the fires started by the No 5 Group attack. Indeed, the fires had been visible from over fifty miles away. Some of the Pathfinder crews later admitted to being mortified on seeing the city ablaze – a feeling explained by the spirited rivalry then existing between Nos. 5 and 8 Groups, who had so successfully initiated this double-blow. 'No 5 Group were known to us as the Lincolnshire Poachers,' said one officer, 'or as the "independent air force." We were irritated to see how successful they had been.'

Unlike the Mosquitoes and Flare Force of No 5 Group, the Pathfinders of the second attack had no Loran navigation equipment, and if the first blow had not been successful, it is unlikely that they would have achieved the necessary concentration on the target. As it was, the second attack began only a few seconds late.

Zero hour for the main force was one-thirty A.M.; of the 550 Lancasters which had taken off, 515 would attack Dresden between 1:23 and 1:52 A.M.

At 1:23 the Blind Illuminator Lancasters, relying only on their H_2S radar images, released sticks of parachute flares across the aiming point, and at 1:28 the Master Bomber, Squadron leader C P C de Wesselow, arrived. He found that the whole of the centre of the city was being swept by raging fires, making it impossible for him to identify the aiming point clearly; a strong north-westerly wind was blowing down there, and a pall of smoke from the burning city was obscuring the whole south-eastern section of the city.

At 1:30 the Deputy Master Bomber, Wing Commander H J F Le Good, arrived.[10] He too found that the aiming point was obscured by fires and smoke. As the two Master Bombers had agreed between them prior to taking off that the Deputy should make the first marking run, Le Good called up de Wesselow to confer with him on an alternative marking tactic. The question was whether to advise the crews over the radio-telephone to concentrate their bombs on the area already burning, or to allow the attack to spread. The Master Bomber decided on the second course: they would concentrate the main force bombing on those areas not affected by the 5rst attack. The Deputy Master Bomber did not therefore use his flares to mark the aiming point. He and the Visual Centerers backing up on him instead marked first to one side, and then to the other of the fire-storm area with the clusters of red and green target indicators, their only concern being to ensure that the bombing did not become too widespread. The bomb aimer in Wing Commander Le Good's aircraft noted down in his log-book afterwards:

> 13/14th February 1945 Dresden. Nil defences, six red target indicators and four 500-pound H.E. bombs carried; smoke from the first attack prevented marking aiming point.

Wing Commander Le Good himself, an Australian, noted: 'Dresden. Clear over target, practically the whole town in flames. No flak.'

The Master Bomber and his deputy did exchange some remarks while they were over the target concerning the railway yards, but the deputy was unable to see them clearly in spite of being to the windward of the burning area. When the Master

Bomber called up the main force, the press-on crews, over the radiotelephone he therefore directed them to bomb first left, then right, and then overshooting the existing fire and flare areas. Both Master Bombers stayed over the target area throughout the twenty-minute duration of the attack. As the Master Bomber was leaving, he checked again for the railway yards, and this time he was able to observe in detail the effect of the raid on them. The Squadron Record Book reports that in his post-raid debriefing he stated that the 'marshalling yards to the south-west had escaped major damage.'

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In most areas of Dresden the sirens had again not sounded. The power supplies had failed during the first attack, and this second raid took the people by surprise.

As the Illuminator Lancasters thundered across the burning city some minutes before zero hour the bomb aimers could see the roads and autobahns leading into Dresden alive with activity. Long columns of trucks, their headlights full on, were racing toward the blazing city. These must have been the convoys of relief supplies and the fire-brigades arriving from the other cities in central Germany. The second component of Harris' double-blow tactics was about to be enforced: the annihilation not only of the passive defences of Dresden, but of a large number of rescue forces summoned from surrounding cities. 'It was the only time I ever felt sorry for the Germans,' related the bomb-aimer of a Lancaster supplied by No 635 Squadron. 'But my sorrow lasted only for a few seconds; the job was to hit the enemy and to hit him very hard.'

Within seconds, the first Lancasters of the Blind Illuminator force were lighting up the whole area with their sticks of parachute ⁶ares.

From the German point of view the opening of a mass attack on a city, prefaced by the waves of Pathfinders, must have been an ominous spectacle – the unseen hands scattering huge, dazzling ⁶ares through the clouds, the coloured target indicators descending in shimmering cascades and glittering hazily over the doomed city with a dread measure of ⁵nality.

The bomber crews had been briefed to watch out early on for these sky flares going down over the target city. But these flares were scarcely needed.

On February 14, 1945 at 1:24 A.M. there was no doubt at all in any body's mind that they had Dresden beneath them. From one end to the other, Dresden had become a sea of fire. 'The area was so bright,' an airman wrote in his diary afterwards, 'that we saw our own aircraft all around us, and our own vapour trails as well.'

'The fantastic glow from two hundred miles away grew ever brighter as we moved in to the target,' wrote another, a Jewish pilot of No 5 Group. 'At twenty thousand feet we could see details in the unearthly blaze that had never been visible before. For the first time in many operations I felt sorry for the population below.'

The navigator of another aircraft from the same group writes: 'It was my practice never to leave my seat, but my skipper called me on this particular occasion to come and have a look. The sight was indeed fantastic. From some twenty thousand feet, Dresden was a city with every street etched in fire.' One flight engineer of No 1 Group recalls that he was able to fill in his log-sheet by the light striking down the length of the darkened fuselage. 'I confess to taking a glance downward as the bombs fell,' recalls a bomb aimer of another No 1 Group bomber, 'and I witnessed the shocking sight of a city on fire from end to end. Dense smoke could be seen drifting away from Dresden, leaving a brilliantly illuminated plan view of the town. My immediate reaction was a stunned reflection on the comparison between the holocaust below and the warnings of the evangelists in Gospel meetings before the war.'

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Each target-indicator flare could be relied on to burn for some four minutes. For this reason the Pathfinder commander had programmed Visual Centring bombers to arrive at three or four minute intervals throughout the attack on Dresden.

Few of the main force crews were aware of the nature of the aiming point they were attacking. Unless they had taken pains to study the intelligence charts and plans in the briefing huts on the previous afternoon – and few aircrew were as keen as that – they were content to aim at the patterns of flares dropped by the Pathfinders and to

follow the instructions broadcast by the Master Bomber: 'The Master Bomber was flying much lower than we were,' records a No 3 Group pilot. 'He was directing each wave of the attack separately, and was most anxious that we should not waste our bombs on districts which were already well ablaze.'

Perhaps some bomb aimers wondered how it was possible for them to be destroying a railway station, or a German army headquarters, or even the Gestapo building or poison gas factory which had been received with such popular acclaim at the briefings, if the Master Bomber was constantly directing the main force to release their loads on different sections of the town. One area that stubbornly refused to catch fire was the Grosser Garten, the large rectangular park in Dresden. Many tons of bombs were wasted in futile attempts to set the park on fire along with the rest of the city; the smoke layers blowing eastward across the city obscured this part of the target area.

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For a second time the German night fighter force was paralysed. This time the difficulty was not one of lack of fuel, or of lack of preparation at the airfields concerned. The night-fighter pilots at the Klotzsche airfield could clearly see the large fires taking hold in Dresden less than five miles to the south. When news reach them through the cable radio channel (the Drahtfunk) of another bombing force approaching central Germany from the south, not one of these German airmen doubted that this second force was heading for Dresden too, thus clearly marked out as a beacon. The Station Commander at once ordered all the night fighter crews into their Messerschmitt 110s at 'cockpit readiness.' The ground crews stood by the starting equipment. The eighteen fighter planes were ready this time, their tanks fuelled and their guns armed, and warned in advance. They would still have more than enough time to reach the attacking altitude.

At 12:30 p.m. the perimeter lighting and flarepath flickered on, brilliantly silhouetting the hundreds of German aircraft parked all round the perimeter track; several squadrons of fighter and transport planes had been withdrawn to Klotzsche from the

eastern front, to prevent their being overrun. But the flarepath had not been switched on for the night fighters. The station commander explained that a flight of transport planes was expected from supply missions to Breslau, now besieged by Marshal Koniev's armies. The flarepaths could be turned off only from time to time. The fighter crews protested that the whole airfield would be destroyed if the enemy bombers saw it. The station commander was adamant, and so the flarepath winked on and off, as though beckoning the British aircraft to attack.

But first ten, then twenty, then thirty minutes passed from the moment that the Drahtfunk had sounded the first alarm; and still the green signal cartridge was not fired.

'Thus we awaited our fate, sitting in our cockpits,' recalled one of the night fighter pilots bitterly. 'Impotently we watched the whole of the second raid on Dresden. The enemy Pathfinder aircraft dropped their 'Christmas Tree' flares right overhead, brilliantly illuminating the airfield which was overflowing with the aircraft transferred from the eastern front.'

Wave after wave of the heavy bombers passed overhead, the bombs whistling down into the city. Still the flarepath lights were switched on and off, on and off, waiting for the transport planes from Breslau. 'At any moment we expected the airfield to be wiped out. The strained nerves of some of the technicians and ground-crews could not take it. They abandoned their starting gear and bolted for shelter. We were certain that the airfield would be obliterated; but apparently the bomber crews had their orders and had to adhere to them; the airfield cannot have been included in their target plans. Given the opposite situation a German formation would scarcely have possessed the discipline not to attack an objective exposing itself in such a manner right by the target area, even if that objective was not mentioned in the original orders.'

Still the green cartridge was not fired. The raid on Dresden was over. The pilots of the Me. 110s whose ground crews had deserted them climbed stiffly out of their cockpits. The other crews followed. The station commander who on his own initiative had ordered the crews to their cockpits now wearily admitted that he had not

been able to contact the First Fighter Division headquarters at Döberitz, outside Berlin, to obtain permission to scramble his squadron.

The telephone lines were dead, he explained, and for some reason the short-wave radio channel between Döberitz and the airfield was also unusable. The telephone lines passed of course through Dresden's old city; and the Luftwaffe's radio communications had been effectively jammed during every major night attack since the introduction of the R.A.F.'s No 100 (Radio Counter Measures) Group in November 1943.

'Result,' commented the night fighter pilot in his diary: 'A major attack on Dresden. The city was smashed to pieces. *We* had to stand by and look on. How could such a thing have been possible? People are hinting more and more at sabotage, or at least at an irresponsible defeatism among the "gentlemen" in the Command Staff. Have a feeling that things are marching to their end with giant strides. What then? Wretched Fatherland!'

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The ground defences were completely silent. Some of the Lancaster bomber crews felt almost ashamed at the lack of opposition. Many crews chose to orbit the burning city several times – there was nothing to stop them. For ten minutes one Lancaster equipped with 35-millimetre ciné cameras circled the target filming the whole scene below for the R.A.F Film Unit. The four-hundred foot film, now stored in the film archives of London's Imperial War Museum, is one of the most grimly magnificent visual records to come out of the Second World War. This film provides the conclusive evidence that Dresden was undefended: no searchlight, no bursting flak shell appears on the film throughout its length.

'When we came to the target area at the end of the attack it was obvious that the city was doomed,' remembers the pilot of a No 3 Group Lancaster which had been hit and delayed by flak over Chemnitz. Originally briefed to arrive at Dresden five minutes before the end of the attack, their Lancaster was now over ten minutes late. Probably theirs was the last aircraft over the target. 'There was a sea of fire covering

in my estimation some forty square miles. The heat striking up from the furnace below could be felt in my cockpit. The sky was vivid in hues of scarlet and white, and the light inside the aircraft was that of an eerie autumn sunset. We were so aghast at the awesome blaze that although alone over the city we flew around in a stand-off position for many minutes before turning for home, quite subdued by our imagination of the horror that must be below. We could still see the glare of the holocaust thirty minutes after leaving.'

Another No 3 Group pilot on the way home was so impressed by the persistent red glow in the sky behind that he verified the aircraft's position with the navigator: they were over 150 miles from Dresden. Instead of growing dimmer, the fires beyond the horizon seemed to be getting brighter. In his diary afterwards this pilot noted, 'It was the first time the R.A.F. had bombed the city. I don't think it will have to be done again.'

'The second force reported that their marking and bombing too were concentrated,' summarised Bomber Command analysts afterwards, 'and that the resultant fires were visible for 150 – 200 miles.'[11]

Between them the two forces had dropped 1,477·7 tons of high explosive on Dresden, including 529 four-thousand pounders and one eight-thousand pounder, and 1,181·6 tons of fire bombs. In the diversionary raids, 109 Mosquitoes had attacked Magdeburg, Bonn, Dortmund, Misburg, and Nuremberg without loss.[12]

Losses had been surprisingly low. Bomber Command's analysts attributed this to the cloud cover and to the successful counter-measures – the radio counter measures and feint operations by aircraft filling the skies with Window foil.[13] In intruder operations the R.A.F.'s Mosquito night-fighters had claimed two Me. 110s as destroyed.[14] The defences, concluded the analysts after studying the de-briefings, had been non-existent. Only nine of the 1,164 returning aircraft reported having been attacked by fighter aircraft, and crews had described the flak defences at Dresden itself as 'negligible.'[15] Several of the bombers had made forced landings in France, and one of these had been wrecked on landing.[16]

Echoing these reports, a British Air Ministry communiqué announced that the fires had been visible 'nearly 200 miles from the target.' Nearly 650,000 incendiaries had

been dropped on the city, the ministry announced, both loose from canisters, and in clusters. Hundreds of four-thousand pounders and eight-thousand pounders had been in the bomb loads.

At first it was announced that the night's operations, in which 1,400 Bomber Command aircraft had been involved, had cost only sixteen aircraft, a loss of rather more than one percent. Of No 100 Group's 128 radio-countermeasures sorties 111 planes completed their missions, and none had been lost. By next day the casualties had dwindled to six Lancasters; the other ten had landed, short of fuel, on the Continent. One had been lost over Böhlen and one during the first raid on Dresden – hit by bombs from above; four more had gone down during the second raid – one to a German fighter east of Stuttgart, one in a collision south-east of Frankfurt, one while approaching the Somme estuary on the way out, and the fourth over Dresden to unknown causes.[17] The wreckage of the two Lancasters lost over Dresden was found in the city's Nord Strasse and Albert Platz, with the dead crewmen still aboard.[18]

The most successful night raid in the history of Bomber Command, involving the deepest penetration into Germany, had been made at a casualty rate of less than half of one percent.[19]

At 6:49 A.M. that morning, February 14, the Air Ministry communiqué began to rattle out of the teleprinters throughout the English speaking world:

6ASH. LAST NIGHT BOMBER COMMAND DISPATCHED 1400 AIRCRAFT. THE MAIN OBJECTIVE WAS DRESDEN. MESSAGE ENDS 06:50 HOURS 14.2.1945.[20]

For Dresden however it was not the end. For Dresden the onslaught was just beginning anew. A new force, this time of American bombers, was already lifting into the air. The principal target for the 1,350 Flying Fortresses and Liberators was to be Dresden once again. The third heavy attack within fourteen hours was under way.

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It was 6:14 A.M. that morning before Adolf Hitler had gone to bed in Berlin. He never retired until the last planes had left German air space. Racked with exhaustion

he rose at one P.M. that afternoon to learn that Dresden was in flames, and that American bombers had just returned to complete the carnage.

After the sirens sounded the all clear Hitler chanced upon Dr Erwin Giesing, visiting the Reich Chancellery; the young army doctor had treated his head injuries after the bomb attempt on his life seven months before. His voice cracking, his gaze drifting absently between the doctor and the floor, Hitler talked of a Victory Weapon (Siegwaffe) that he still had up his sleeve. 'Then the war will come to a glorious end,' he said. 'Some time ago,' he continued, 'we solved the problem of nuclear fission and we have developed it so far that we can exploit the energy for armaments purposes. They won't know what hit them! It's the weapon of the future. With it Germany's future is assured. It was Providence that allowed me to perceive this final path to victory.'

He shambled off back down into the bunker: he had lied to the doctor – or perhaps romanticised, and he knew it.[21]

[1] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO) (Author's microfilm DI–35).

[2] The records of Dresden-Klotzsche were quoted to the author by the German Central Meteorological Office in Offenbach.

[3] Appendix: Summary of Operations against Germany on Nights of 13th/14th and 14th/15th February 1945 (Records of RAF Bomber Command, PRO file AIR…/…) (Author's microfilm DI–35).

[4] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35).

[5] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35).

[6] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[7] Details of the Main mForce brefings were quoted to the authgor by Messrs Hofmann, Abel, Lindsley, and Jones, all foremr Bomber Command aircrew personnel. Other details were quoted to

the author by Messrs Cook, Mahoney, Parry, and otehr airmen and offciers of Bomber Command at the time.

[8] That the Air Ministry had spoken of poison gas plants, vital ammunition works, etc. was outlined in a communication to the author from the Air Historical Branch.

[9] The attitude was evidently current among Bomber Command crews for many weeks: for several of the major 1945 operations into Germany the bombers' call-sign was given as PRESS-ON.

[10] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35).

[11] Ibid.

[12] The timing of the actual attack is based on the Operational Record Book of No 635 Squadron, and on log book entries made by Squadron leader C P C de Wesselow, Wing Commander H J F Le Good (deputy Master Bomber), and their crew members.

[13] Ibid.

[14] Appendix: Summary of Operations against Germany on Nights of 13th/14th and 14th/15th February 1945 (Records of RAF Bomber Command, PRO file AIR…/…) (Author's microfilm DI–35).

[15] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35).

[16] Appendix: Summary of Operations against Germany on Nights of 13th/14th and 14th/15th February 1945 (Records of RAF Bomber Command, PRO file AIR…/…) (Author's microfilm DI–35).

[17] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35).

[18] Ibid.

[19] Appendix: Summary of Operations against Germany on Nights of 13th/14th and 14th/15th February 1945 (Records of RAF Bomber Command, PRO file AIR…/…) (Author's microfilm DI–35).

[20] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35).

[21] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14.

und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[22] Of the 1,281 bombers which took off, 1,182 attacked the primary targets. See the Appendix to the Summary of Operations against Germany on Nights of 13th/14th and 14th/15th February 1945 (Records of RAF Bomber Command, PRO file AIR…/…) (Author's microfilm DI–35). Aircraft operating statistics were as follows:

	Böhlen	Dresden (1st)	Dresden (2nd)
Number of aircraft despatched	*368*	*254*	*551*
Number of aircraft reporting attack on primary area	***335***	***244***	***529***
Number of aircraft reporting attack on alternative area	*2*	*1*	*4*
Number of abortive sorties	*31*	*9*	*18*
Number of aircraft missing	*1*	*1*	*4*
	(0.3%)	(0.4%)	(0.7%)

[23] Air Ministry bulletin No 17,506.

[24] Erwin Giesing MS (IfZ, Irving collection); note that Giesing wrote it from notes, on Jun 21, 1945, before Hiroshima.

The Triple Blow Complete

In Moscow the Soviet army general staff had received without comment the news that the British and American air forces were to attack Dresden.

Following procedures established during the first days of February 1945, messages the Allied commanders passed messages through military channels to Moscow to notify them of this. On February 7 General Spaatz informed Major General John R Deane, chief of the U.S. military mission in Moscow, that the 'communications targets' for strategic bombing by the Eighth Air Force were to be, in order of priority, Berlin, Leipzig, Dresden, Chemnitz and others of lesser importance; Spaatz undertook to provide the Russians with twenty-four hours' notice of each such operation.[1] The next day Deane's staff duly passed this information – that Dresden was among targets selected to be bombed – on to the Russians.[2]

As we have noted earlier, the Americans were very nearly the first to bomb Dresden. On February 12 General Spaatz had informed the U.S. military mission in Moscow that, weather permitting, he proposed to send twelve to fourteen hundred heavy bombers of the Eighth U.S. Air Force to attack the Dresden marshalling yards on the thirteenth.[3] That same day the chief of the American aviation section in Moscow, Major-General Edmund W Hill, passed precisely this information on to the Soviet general staff.[4]

'As is seen from this communication,' a Soviet government spokesman pointed out to this author, 'the allies made known to the Soviet command only their intention to bomb the marshalling yards at Dresden. Mass attacks on the city area itself were not communicated to the Soviet army general staff.'[5] The Soviet army must however have been aware of the implications of a large scale Allied attack on marshalling yards, from what they knew of the raids on other German railway centres.

Although the American crews were briefed for this mission on the day following this communication, February 13, 1945, weather conditions forced its cancellation.[6] That day Major-General Hill again announced in Moscow that if weather permitted the Eighth Air Force would be attacking the marshalling yards in Dresden and Chemnitz the next day. In a subsequent message, the Russians were told that Dresden and other such high priority communications targets would be attacked whenever weather permitted.[7]

On the early hours of February 14 the weather was deemed favourable and the executive order was issued by American air force headquarters for the attack on Dresden – the third blow to the city within fourteen hours. An almost simultaneous American attack was to be launched on Chemnitz, thirty-five miles to the south-west. The Chemnitz attack would pave the way for an attack on that city by Sir Arthur Harris' bombers that same night. Thus Chemnitz was to suffer the fate originally planned for Dresden, an American attack preceding, not following, a British double-blow.

Even before the Lancasters of Bomber Command returning from Dresden had crossed the English coast the crews of over 1,350 B–17 Flying Fortresses and B–24 Liberators and of all fifteen American fighter groups were sitting down to the usual pre-operational 'hangman's breakfast' of cold powdered eggs and coffee. The briefing began at 4:40 on the morning of the fourteenth, long before dawn broke across the frosty East Anglian countryside.

The First Air Division was to deliver this third blow to Dresden with a force of some 450 Flying Fortresses. Again the heaviest bombers, with maximum bomb-carrying capacity, were allocated to Dresden; all others were despatched on secondary tasks – missions to Magdeburg, Wesel, and Chemnitz.

The problem which again worried the navigation leaders was how to avoid faulty navigation which might take the Fortresses beyond the Russian lines. For the Dresden operation they decided to route the bombers out to an Initial Point on the river Elbe, after entering enemy-held territory over Egmond on the Dutch coast, and making a rendezvous with groups of P–51 Mustangs at a point south of the Zuider Zee. The fighter groups would accompany and escort the bomber formations, flying

in their tight boxes of thirty-six to forty heavily armed aircraft, to Quakenbrück, south-west of Bremen. From Quakenbrück the bomber formations would head south-east for two hundred miles in a straight line across Höxter to Probstzella. The Magdeburg-bound Liberators would follow the same route and divert from a point near Höxter on a heading which could take them equally to either Magdeburg or Berlin. The First Air Division's four hundred and fifty Fortresses detailed for the Dresden mission, accompanied by some three hundred more bombers from the Third Air Division attacking Chemnitz, would then head north-east to their respective targets.

Chemnitz was over a hundred miles from the Russian lines and the danger of faulty navigation was less severe.

In the case of Dresden, the lead navigators in the Bombardment Group were instructed to set course for the Initial Point at Torgau, fifty miles north of Dresden on the river Elbe. From Torgau they needed only to head south to the first large city with a river snaking through it; this would be Dresden. Their actual target would be the railway station in the Neustadt area. The crews do not appear to have been briefed to look for a smoke pall over the target city; in fact the Germans were so adept at faking dummy targets by day that the lead bombardiers of the Bombardment Groups were warned to rely only on their crews' navigation, and not to take the aspect of the target below them into account. The flak defences at Dresden were reported to be 'moderate, to heavy, to unknown.'

The bomber call sign was given as VINEGROVE. Should the weather close down severely over the continent, the recall codeword for the Dresden mission was CARNATION. The fighter escort flights were to be identified by various call-signs – COLGATE, MARTINI, SWEEPSTAKES, RIPSAW and ROSELEE were among them.

It is worth noting that although it was the stated intention of this triple blow on the Saxon capital Dresden to destroy the town and make it impossible for the Germans to fall back on it as an administrative headquarters, once again, as at Berlin ten days earlier, the bombardiers were advised that they were attacking 'railway installations.'

There was little joy in the hearts of the American crews that morning. They were required to be in their aircraft by 6:30 A.M. They were relieved to hear that engine-

starting, provisionally set for 6:40 A.M. had been postponed for an hour. Apparently there was still uncertainty with the weather over the continent.

The Lancasters were returning over the East Anglian coast and the American airmen must have seen them passing high overhead as they waited beside their aircraft for the signal to take off. Finally at 8:00 A.M. the Véry lights were fired and the Fortresses rolled down the runway and set course for the radar 'splashers' over which they would meet other squadrons, other bombardment groups, and finally joined up with the whole First Air Division making its way to the Dutch coast. They were escorted by Spitfires as far as the coast-out point. At the Zuider Zee the Mustang fighter groups were duly waiting for the bombers and the whole force set out to fight its way across Germany. On the way into Dresden some of the groups became scattered on condensation trails. The initial zero hour for the Flying Fortress formations over the target was given as noon; but as the bombers flew in self-defensive formations and in visual contact with each other, the same accuracy was not required of the individual navigators as was required for the R.A.F. night bombers, who had to stay in a designated stream five miles wide, knowing that if they strayed out of that stream they lost the protection afforded by Window, and were more vulnerable to night fighters.

There were cloud layers above and below the invading force: ten-tenths cloud still covered the whole of the continent. It was unlikely that visual bombing of the target would prove possible. At Kassel the bomber formations were greeted with heavy flak but there were few hits.

The 20th Fighter Group was escorting the first two bombardment groups of the First Air Division to Dresden. The remaining escort duties were undertaken by the 364th, 356th, and 479th Fighter Groups. It will suffice for the purposes of this narrative to describe the 20th Fighter Group's role in the operation. It was mission number 260 in the group's history; the group was subdivided into 'A' and 'B' sub-groups, a total of seventy-two P–51s which had to rendezvous with their charges, the bombardment groups at the Zuider Zee soon after 10:45 A.M. The 'B' group fighters had to maintain visual contact with the bomber boxes; the 'A' group pilots were briefed that as soon as the bombers' attack on Dresden was over they were to dive to roof-

top level and strafe 'targets of opportunity.' Columns of soldiers being marched into or out of the wrecked city were to be machine-gunned, trucks strafed by cannon-fire, and locomotives and other transportation targets destroyed by rockets. Both 'A' and 'B' groups would withdraw from the bomber formations at 2:25 P.M. at a point near Frankfurt where escort duty would be taken over by P–47 Thunderbolts.

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The bomber formations picked up the Initial Point of the bombing run at Torgau as planned, and followed the river down to Dresden. The target aiming points, the city's three large railway stations and marshalling yards – two of them in the older part of Dresden, the third in Neustadt – were to be indicated by smoke streamers. The first bombs began to fall on the city, still burning furiously from the previous night's attack, at twelve minutes past noon. For eleven minutes the salvoes of bombs whistled down through almost complete cloud cover on to the northern section of the city, Dresden Neustadt. 'The clouds came up high, not far below us,' reported one of the bombardiers. 'But they broke up from ten-tenths, and over Dresden there was about nine-tenths cloud. There was no flak for us at the target. Bombs away at 12:22.'

Captain James R Rich, a bombardier in the first group over the target, reported that the area was spotted with clouds but he managed to pick up most of his check points while on the bombing run. 'I saw a couple of fires burning before I dropped my bombs,' he reported afterwards, 'but a thick layer of smoke that covered the whole works prevented me from seeing how large they were.' The B-17s dropped a total of 474·5 tons of high explosive and 296·5 tons of incendiaries.[8]

Simultaneously with the end of the American attack at 12:23 P.M. the thirty-seven P–51s of the 20th Fighter Group's 'A' Group hurtled low across the city together with the 'A' groups of the other three fighter groups operating over Dresden. From eye-witness accounts, which may be mistaken, most of the pilots appear to have decided that the safest attacking runs could be made along the Elbe river banks. Others attacked vehicles on the roads leading out of the city, crowding with refugees. According to one account, a P–51 of the 55th Fighter Squadron flew so low

that it crashed into a wagon and exploded.[9] The other fighter pilots were however disappointed by the lack of opportunities for actual combat, although none of them regretted the absence from the target area of the dreaded German jet-fighter, the Messerschmitt 262. Three Me.262s were reported this day making passes at the bomber formations in the Strasbourg area. None of the jets opened fire, and one was claimed damaged. The overcrowded fighter airfield at Dresden-Klotzsche was once again left unmolested. The Luftwaffe's flying personnel were evacuated from the airfield: V./NJG.5 being a night fighter squadron, there was no part that the airmen could usefully play in daylight operations. They witnessed the American attack from the fields to the north of the city.

Sending a preliminary report on this raid to his superiors, the Dresden police commander sent this cipher message (which the British soon deciphered): 'Renewed attack 14.2.45 from 12:15 to 12:25 hrs. High explosive and incendiary bombs. More accurate details not yet possible to establish because all signals communications and most police stations are out of action. Moderately heavy attack; in particular stationary Wehrmacht trains with ammunition, etc., were hit between goods stations Dresden-Neeln and Pieschen.'[10] It is worth noting that he made no reference to strafing of civilians.

Most of the B–17s found Dresden and 316 of them had made what were called 'effective sorties against the marshalling yards.'[11] Another 771 tons of bombs had been dropped on Dresden.[12] The Germans scrambled over one hundred and forty fighter planes to intercept the raiders, but these claimed only two victories.

For at least one American unit the operation on Dresden seems to have gone astray. The 398th Bombardment Group lost its way flying through cloud at its predetermined altitude and when the forty B–17s emerged above the cloud the lead navigator was uncertain about their position.[13] They should have picked up Torgau and headed south-east to the first big city on a river. (The Flying Fortress lead navigators were relying on their superior APS.15 radar for navigation. The 'mickey-man' operating the APS.15 would read off six successive sighting angles on his screen between the aircraft and the city ahead and these were set on the lead bombardier's sighting angle index on the Norden bombsight. The other bombardiers would all press their bomb releases

when they saw the bombs of the lead plane cascade out of the racks.) It struck some of them as odd when their high squadron was attacked by German fighters – but their fighter escort had long evaporated. For a while the formation banked and wheeled, making S-turns for an on-time arrival over the target. and this added to the error. Eventually the navigation leader picked up what he took to be Torgau, and turned on a bearing to take them to Dresden.

Some time passed before the navigator in one of the Fortresses, 'Stinker Junior,' a flying Deputy Group Leader, radioed the Group Commander and suggested that in fact they had picked up Freiberg instead of Torgau; he was overruled and told to keep radio silence. From time to time the bombardiers reported that they could see a river underneath. There was indeed a river snaking through the city ahead. The bombardier could see no detail of the city to warrant taking over on a visual run, and a blind attack was made by radar. After a while the navigator in 'Stinker Junior' again broke radio silence and insisted that they had not in fact bombed Dresden; the other navigators now also disputed the lead navigator's calculations. They concluded that their forty bombers had delivered their attack on Prague instead – a bitter blow for the pilot of 'Stinker Junior,' a Czech citizen born and bred in Prague, who had fled to America when the Nazis occupied his country.

Errors like these were not uncommon in raids conducted at extreme range for the Americans. Many of the Flying Fortresses ran into serious fuel problems on the flight back to England. Many landed on airfields in Belgium and France; some of the P–51s ran out of fuel before they could taxi to the parking aprons.

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Bomber crews returning with the Flying Fortresses from their eight and a half hour flight reported that 'huge fires were still burning in the city after last night's attack by R.A.F. Bomber Command, with a layer of smoke over the whole city.' The scale of the disaster that had befallen Dresden was only slowly filtering through to the higher Nazi echelons in Berlin. The Luftwaffe High Command reported in its war diary for February 14:

> In the west on the night of February 13–14 the British undertook a further major incursion from behind a powerful radio jamming screen and with the bomber squadrons themselves releasing large amounts of Window. About fifty Mosquitoes attacked Magdeburg, about 300 heavy bombers and Mosquitoes attacked Böhlen and Tröglitz, about 300 heavies and Mosquitoes attacked Dresden. Three hundred more heavies and Mosquitoes staged a repeat attack on Dresden about three hours later.
>
> By this double attack the city of Dresden was critically damaged, the inner city almost entirely destroyed. Immense casualties.
>
> In the course of the day about twelve hundred American heavies continued the air offensive against the Reich from the west, concentrating on Chemnitz, with sections to Dresden and Magdeburg. Grave terror-effect in the cities attacked. Only 145 of our own planes could be operated against this attack.[14]

At the same time, higher up the chain of command a dazed Oberkommando der Wehrmacht took stock in its secret situation report:

> For the first time a daylight attack was delivered by all available American heavies in the West on Dresden; fire-storms were caused by this attack and those of the previous night. The Central Station has been knocked out. There are now 500,000 homeless in a city of 650,000 inhabitants – a figure enormously swollen by refugees. Only 146 of our day fighters took off in Dresden's defence; they were savagely beaten down by seven hundred American fighters. We shot down two bombers, but twenty of our own fighters are missing.[15]

The simultaneous American attack on Chemnitz had been less successful; 295 aircraft had attacked the city and its marshalling yards, and dropped 718 tons of bombs on the target area. But many sections of the Third Air Division force detailed to attack Chemnitz had been unable to identify the target; the 34th Bombardment Group had delivered attacks instead on Hof and Sonnenberg. When the 390th Bombardment Group arrived at Dresden the lead bombardier was unable to pick up the tar-

get beneath the cloud layers and dropped his bombs instead on a Luftwaffe airfield at Cheb in Czechoslovakia and on Plauen, using the pathfinder method. The Americans had dropped a further 811 tons of bombs on the Brabag Bergius hydrogenation plant at Magdeburg. But already the weather conditions which had made possible the R.A.F. Bomber Command attack of the previous night had sadly deteriorated.

The only limited success of the attack on Chemnitz was to set the pattern for the rest of the offensive against Germany's eastern population centres. Harris's attempt to spring of series of sudden, catastrophic blows on these cities petered out. According to Albert Speer, the former German armaments minister, such a series of blows might indeed have forced the sudden capitulation of the German people. He stated during his July 1945 interrogation that 'in every case in which the R.A.F. *suddenly* increased the weight of its attacks … as for example in the attacks on Dresden the effect not only upon the population of the town attacked but also upon the whole of the rest of the Reich was terrifying, even if only temporarily so.'

That the raids on Dresden had failed to bring about a sudden capitulation was not because of any want of damage. Over sixteen hundred acres of the city had been devastated in one night, which compared with the rather under six hundred acres destroyed in London during the whole war.

Sir Arthur Harris was determined not to give up, indeed keen to twist the knife in the wound. His tired Bomber Command crews who had stumbled into their beds soon after nine in the morning were roused before three o'clock that afternoon and told to expect a big operation that night. As they walked across to the briefing huts they could see the lines of fuel tankers filling up the Lancasters again, and from the minimal bomb loads being winched up into the bomb racks they deduced that once again it was to be an operation at extreme range.

This time less attempt was made to veil the nature of the target city. Although Chemnitz as a city possessed many obviously military and legitimate targets – the tank works, the large textile and uniform-making factories, and one of the largest locomotive repair depots in the Reich, in at least two squadrons of two Bomber Groups an almost identical wording of the briefing was used by the Intelligence officers. Thus No 1 Group crews were informed: 'Tonight your target is to be

Chemnitz. We are going there to attack the refugees who are gathering there, especially after last night's attack on Dresden.' No 3 Group crews were briefed in these terms:

> Chemnitz is a town some thirty miles west of Dresden and a much smaller target. Your reasons for going there tonight are to finish off any refugees who may have escaped from Dresden. You'll be carrying the same bomb loads and if tonight's attack is as successful as the last, you will not be paying many more visits to the Russian front.

The latter wording is from the diary kept by one of the bomb aimers who was present at one of the No 3 Group briefings.

Once again Sir Arthur Harris had divided the attacking force into two waves. This time however, anticipating that the German fighter controllers in the 'battle opera house' at Döberitz would be aware of the significance of this concentrated offensive on the eastern cities, Harris had prepared an even more complicated strategy of feints and spoof attacks to divert the night fighters. A substantial force of Lancasters – 244 of them from No 5 Group – was to attack the Deutsche Petroleum refinery at Rositz, not far from Leipzig. In the first wave of the main attack on Chemnitz 329 heavy bombers including 120 Halifaxes and Lancasters from No 6 Group were to set fire to the city, guided by regular Pathfinder marking; three hours later 388 bombers including this time the No 4 Group Halifaxes and 150 Lancasters from No 3 Group, were to attack the burning city. Diversionary sweeps were to be conducted by a minelaying force in the Baltic, while the Light Night Striking Force of Mosquitoes provided by Air Vice-Marshal Bennett attacked Berlin.

Despite all this, the attack on Chemnitz was a relative failure. The weather forecast from the Bomber Command meteorological service had predicted that the city would not be obscured by cloud; but an amendment had been later issued indicating a risk of thin broken alto-cumulus or alto-stratus cloud, or both, and thin stratus cloud at low altitudes; unlike the very accurate weather forecast issued before the attack on Dresden, this forecast was seriously mistaken. One Australian Lancaster pilot re-

ported that when he was 120 miles from Chemnitz the sky began to cloud over, and over the target itself he found ten-tenths cloud piling up to fifteen thousand feet, which prevented visual identification of the aiming point.

The city was totally covered by cloud when the first force arrived and the Path[5]nders were obliged to rely entirely on sky marking. Their flares disappeared into the clouds almost as soon as they were released.

The Master bomber during the second blow, a Canadian like the master bomber in the second attack on Dresden, was clearly worried as to where to direct the bombers; he repeatedly called over the radio telephone for more flares, but few were forthcoming. He seemed indecisive, unlike his counterpart the night before, and he had difficulty in locating the target at all.

In addition, the bomber formations were seriously pestered by the German night fighters which had not been misled by Harris' elaborate feints. They laid fighter flares all the way from the frontier to the target and back; the difficulties under which the young pilots of the German night fighter force were labouring, their equipment jammed by No 100 (Radio Counter Measures) Group, are well illustrated by this extract from a night fighter pilot's diary:

> FEBRUARY 14, 1945. Just as expected: scrambled this evening. This time the B-crews were scrambled too, and in good time. Target: Chemnitz, a major air-raid. Our operations were under an unlucky star right from the start: *EiV* [Eigenverständigungsanlage, the aircraft intercom] packed up, no radio beacon picked up, *Fug. 16* VHF-received jammed, [picking up] flak predictors, jamming signals, and enemy fighter approach radar [FISHPOND]. Radio communication with Prague suddenly evaporated, so had to fly south-west. Could not find a landing ground, fired *ES* [Erkennungssignale, emergency recognition flares], last hope: a tiny maintenance and repair airfield at [Windisch-] Laibach. Nevertheless a clean landing. Another fifteen minutes and we would have had to bail out.

The efforts of the Luftwaffe to ward off Sir Arthur Harris' lunges into the heart of Germany can be no better portrayed than as mirrored in the notes of this young German fighter pilot, struggling to engage a technically far superior enemy.

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The results of the fire-storm that they had started in Dresden the night before were apparent to the aircrew of the No 5 Group force attacking Rositz. As they passed by barely fifty miles from Dresden, the fires were still burning. (Dresden burned, as one British prisoner of war in the city noted day by day in his diary, for seven days and eight nights.) The Chemnitz railway system was scarcely hit at all. Nearly three quarters of a million incendiaries were dropped on Chemnitz but there was nothing approaching a fire-storm and in comparison with the raid on Dresden the death roll was low, apart from isolated incidents – of seven hundred children in an orphanage hit by the bombs, only thirty-six survived.[16] All historical evaluations of the Chemnitz attack are in agreement that the city was not damaged severely, either by the daylight attack of the American Flying Fortresses or by the British double-blow. 'There was no marked concentration of bombing and the numerous fires which left a glow on the clouds were scattered over a large area,' reports the Canadian bomber group history.

This demonstrated clearly yet again how the random methods of blind bombing through overcast or on sky markers failed to achieve the scale of devastation attained by No 5 Group's sector attack method. Perhaps if Sir Arthur Harris had required No 5 Group to start the Chemnitz attack as well – they had after all proved their worth in the Dresden double-blow – a fire-storm might have been ignited of sufficient violence to provide crews of the second attack with a bright enough glow to aim around.

There is no explanation on record why he delegated the task to Bennett's No 8 Group Pathfinders, unless it was partially a desire to appease Bennett, unhappy when the honour of leading mass attacks was awarded to his rivals; and partially Harris' conviction at this stage of the war, when the Romanian oilfields had been finally overrun, and the transportation attacks were introducing a degree of thrombosis

into the German railway networks, that the attack on the oil plant at Rositz was worthy of the precision attention of No 5 Group while the attack on Chemnitz was not. The American bomber commander certainly returned to an immediate resumption of the oil offensive after Chemnitz, as we shall see.

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Discussing the July 1943 Battle of Hamburg, fought at a stage when German morale had possibly never been higher, Albert Speer revealed two years later under interrogation that 'I … reported to the Führer that a continuation of these attacks might bring about a rapid end to the war.'

In the raids on Hamburg, lasting for over a week, some forty-eight thousand of the port's inhabitants had been killed, particularly during the fire-storm on the night of July 27, 1943. The British double blow on Dresden, and to a lesser extent the American daylight attacks, cost up to a hundred thousand people their lives. For the first time in the history of war an air raid had wrecked a target so disastrously that there were not enough able-bodied survivors left to bury the dead. The attempt to repeat the catastrophe at Chemnitz, had however failed. The opportunity of crippling German civilian morale by two 'Dresdens' within forty-eight hours was lost.

Had the two attacks, on Dresden and on Chemnitz, succeeded in their purpose – had they indeed forced the precipitate capitulation of the German people, as foreseen by Albert Speer, probably there would have been no outcry. If the immediate surrender of the enemy had been the result, as the Japanese would surrender after Hiroshima and Nagasaki, there would have been few recriminations.

As it was the attacks failed to achieve anything other than a brutal spectacle of Allied air superiority. Dresden had been ruined, but the war would continue for another three months.

Those who originated the orders for the attacks, and who were preparing themselves for the acclaim, withdrew into the background. Now a scapegoat had to be found.

[1] Message, USTAAF UA–53861, Feb 7, 1945, cit. in Walter F Angell Jr., 'Historical Analysis of the 14–15 February 1945 Bombings of Dresden.' (USAF Historical Division Archives); presumably RAF

Bomber Command sent a similar message to the British military mission in Moscow. – Cf. Major General John R Deane, *The Strange Alliance* (New York, 1947), 139–141.

[2] Letter, Major General S P Spalding, acting chief, US military mission, Moscow, to Major General N V Slavin, assistant chief of staff of the Red Army, Feb 8, 1945 (ibid.)

[3] Message, HQ USTAFF US–642102, Feb 12, 1945 (ibid.)

[4] Letter, Major General Edmund W Hill, chief, Air Division, US military mission, Moscow, to Major General N V Slavin, assistant chief of staff of red Army, Feb 12, 1945 (ibid.); General Hill confirmed these details in communications to the author.

[5] Soviet historian C Platonov, President of the Moscow *Journal of Military History*, to the author.

[6] Message, Eighth Air Force, D–69497, Feb 13, 1945 (USAF Historical Division Archives).

[7] Military Mission, Moscow, to Slavin, Feb 13, 1945. – Message, HQ USTAFF UAX–64452, Feb 18, 1945, all cit. by Walter F Angell Jr., 'Historical Analysis of the 14–15 February 1945 Bombings of Dresden.' (USAF Historical Division Archives).

[8] Document No.520.309c, Feb 14, 1945 (ibid.)

[9] ce, IntOps Summary, for Nov 17 1944 through Feb 24, 1945, Nos.201 through 300, document No.520.306a (USAF Historical Division archives).

[10] So this author was told. US Air Force historians have however suggested that the only casualty suffered this day by the 55th was First Lieutenant Jack D Leon, while attacking a train. 'The accident most probably occurred somewhere in Czechoslovakia.' In the opinion of the US Air Force historians the 150 (out of 461) B–17s escorted by the 20th Fighter Group did not attack the assigned target, Dresden, but targets of opportunity in Czechoslovakia.

[11] Commander, Civil Police, Dresden, to Chief of Civil Police Luftgaukommando III, Berlin–D: Preliminary Report from the Luftschutzgebiet Dresden; extract from Ultra file GPD.4015, Feb 15, 1945, decrypt (English translation) in 2pp. SHAEF file, 'Dresden Attack,' ca. Mar 1945, document No.506.55a (Maxwell AFB: USAF Historical Division Archives).

[12] This is the figure given in the Eighth Air Force target summary; the official American history, *The Army Air Forces in World War II* quotes a figure of 311 B–17s.

[13] Tonnage is quoted in British long tons.

[14] Based on a communication from lead bombardier Ed McCormack to the author.

[15] Kriegstagebuch OKL Führungsstab Ia, Feb 14, 1945 (National Archives, Washington, DC, film T321, roll 10).

[16] Kriegstagebuch des OKW, Feb 14, 1945.

[17] A full account would be out of place in this narrative, but the reader's attention is directed to Sir Arthur Harris' *Bomber Offensive* for a description of the night's operations.

[18] Jim Conrad, of Spanaway, Washington state, USA, to the author, Sep 19, 1994: his wife was one survivor, buried for three days in the basement of the orphanage.

Part Four

THE AFTERMATH

Ash Wednesday

As the dawn of Ash Wednesday, February 14, 1945, broke over central Ger many the wind was still blowing strongly from the north-west. In Dresden the arrival of the dawn was hardly noticed. The city was still obscured by the three-mile high column of yellow-brown smoke and fumes which characterised the aftermath of a fire-storm. Perhaps this different colour of the funeral shroud hovering above the luckless city was a measure of the extraordinary flotsam of charred and shrivelled fragments of buildings, trees, and debris which had been caught in the grasp of the artificial tornado and were still being sucked up into the sky.

As the swathe of smoke drifted down the River Elbe toward Czechoslovakia, the people in the towns and cities over which it passed must have guessed that here were the results of no ordinary raid, that these were in fact the last mortal remains of a city which twelve hours earlier had sheltered a million people and their property.

As the smoke pall was driven ever further from the still burning city, the air cooled; as the air cooled, the damp clouds heavy with dust and smoke began to break. The rains fell along the whole length of the Elbe valley.

Not only rain descended from the sky: the countryside to the leeward of Dresden was drenched with a steady shower of wet and sooty ash. British prisoners of war

working in the large parcels sorting dump at Stalag IVb over twenty-five miles south-east of Dresden noticed that the smoke pall lasted three days and that particles of smouldering clothing and charred paper were still floating down over the camp for many days after that.[1] The owner of a house in Mockethal, some fifteen miles from Dresden, found his garden littered with prescriptions and pill-boxes from a chemist's shop; the labels showed them to have come from the heart of the Dresden inner city.[2] Papers and documents from the gutted Land Registry in the inner city likewise showered down in the village of Lohmen, near Pirna, some eighteen miles away; schoolchildren had to spend several days scouring the fields for them.[3]

These were the manifestations of the most terrible fire-storm in the history of the R.A.F.'s area offensive against German cities. According to the police report the fire-storm appears to have erupted between half an hour and forty-five minutes after the first attack began, and to have subsided only gradually until, with the fall of a light rain toward three A.M., it could be said to have worked itself out and lost its fury; but it had itself caused the deaths of thousands of frail and elderly people who otherwise would have been able to fight their way out of the encircling ring of fires.

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The Battle of Hamburg in July 1943 had brought Germany's first such fire-storm: eight square miles of the city had burnt as one single bonfire. The air raid on Pforzheim, a little jewellery-manufacturing town in Württemberg, ten days after the destruction of Dresden would create the last fire-storm of the war, killing 17,600 people – almost one in four of the town's population – in the space of twenty minutes.

So horrific was the phenomenon in Hamburg that the police president had ordered a scientific investigation of the causes of such fire-storms, so that other cities might be warned. 'An appreciation of the force of this fire-storm,' reported Hamburg's police president, 'could be obtained only by analysing it soberly as a meteorological phenomenon: as the result of the sudden linking of a number of fires, the air above was heated to such an extent that a violent updraught occurred which, in turn, caused the surrounding fresh air to be drawn in from all sides to the seat of the fire. This tremendous suction caused movements of air of far greater force than normal winds.'

> In meteorology [he continued] the differences of temperature involved are of the order of 20° to 30° Celsius. In this fire-storm they were of the order of 600°, 800° or even one thousand degrees Celsius. This explained the colossal violence of the fire-storm winds.

The Hamburg police president's gloomy forecast was that no kind of civil defence precautions could ever contain a fire-storm once it had begun.[4] The fire-storm was a man made monster which no man would ever tame.

In Dresden the fire-storm appears by examination of the area more than seventy-five percent destroyed to have engulfed some eight square miles: some of the city's authorities after the war put the area as high as eleven square miles. It was unquestionably the most devastating fire-storm that Germany had experienced. All the signs observed in Hamburg were repeated in Dresden, multiplied in scale many times. Giant trees were uprooted or snapped in half. Individuals were flung over and bowled like tumbleweed along the streets as the hurricane ripped all the clothes from their bodies. Crowds of people fleeing for safety were seized by the tornado, hurled into the flames and burned alive – a holocaust in the truest sense of the word. The rapacious moloch found constant nourishment to feed its furious appetite. Gables of roofs, and furniture that had been stacked on the streets after the first raid were plucked up by the violent winds and tossed into the centre of the burning inner city.

The fire-storm reached the peak of its strength in the three-hour interval between the raids. This was the very period in which those sheltering in the cellars and vaulted corridors of the inner city should have been fleeing to the safer surrounding suburbs.

As one S.S. officer reached the Post-Platz – formerly a hub of Dresden's traffic, but soon to become a desolate wasteland of ruins, weeds, and shrubs – the brilliant 'Christmas trees' appeared in the sky heralding the start of the second raid. Without further thought he clawed his way feet first into a sewer shaft which opened onto the pavement's edge. From here he had an eerie peephole onto the infernal scene all around. The fire-typhoon was thundering through all the streets and alleys with such strength that it was feeding human beings into the grasp of the fires like dry leaves.

'Their clothes literally flew off their bodies,' he described. 'Then they slithered, slipped and rolled a hundred yards into the flames as though drawn by an invisible but mighty magnet.'[5] A railroad worker also sheltering near the Post-Platz observed how the hurricane seized a woman with a perambulator and tossed her brutally into the flames.[6] Other people, running for their lives along the railway embankments which were the only escape routes not badly cratered or blocked by rubble, reported how railway trucks on exposed portions of the lines had been blown over by the gale.[7]

Even the open spaces of the large squares and great parks were no protection against this unnatural hurricane. Several thousand people had fled into the rectangular Grosser Garten, the one mile long park in the heart of the southern city, where surrounded by lakes, shrubs, wooded groves and ornamental palaces they had felt some measure of security. 'We were running across one of the lawns of the Grosser Garten,' reported one man, 'when something white flew through the air toward me. I grabbed at it, and my hand closed on a large feather eiderdown. At the same time we heard some hundred yards away a giant oak tree crashing down. We pulled the branches aside and crawled beneath the trunk.'[8]

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Once the fire-storm had erupted there was nothing that the fire fighting forces could do to contain it. In all the great German fire-storm raids the swift and unhindered emergence of the storm had been prospered by the early disruption of telephone communications between civil defence control rooms and external reinforcements.

In Germany, as in England, the fire brigades had been reorganised during the war on nationwide, paramilitary lines, one feature of which was the constant mobile reserve of fire fighting regiments held outside the danger zones.

Most of the major cities had at this stage of the war been equipped with alternative telephone communications and with radio links between important control posts. But invariably these were unreliable when it came to the test, and the civil defence authorities had to fall back on the standard Post Office telephone network. Much

therefore depended on how long this system functioned in an emergency before it was overwhelmed. In the Battle of Hamburg in July 1943 the telephone communications had very soon broken down, and when the fire-storm broke out on the third night the service had still not been adequately restored. Added to this, as we have seen, the burning down of the police headquarters which housed the civil defence control room had for a while seriously hampered fire fighting. In Kassel in October 1943, the telephone exchange had been hit twenty minutes after the start of the attack, and the motor-cycle dispatch rider service had proven inadequate for this emergency. For this reason fire brigades arriving in Kassel from nearby cities had waited for several hours without any definite orders for action.

Now, in Dresden, the almost immediate destruction of telephone communications was to seal the city's fate. With a native fire brigade of less than one thousand men, and with few fire appliances under its direct control, the city was dependent on immediate assistance arriving from outside the city.

Both the power station and all of the Party's, province's and city's administrative buildings lay well within the fan -shaped sector marked out for saturation bombing by No 5 Group. From the air raid warning post (Luftschutzwarnkommando) all reports had to be transmitted to the Air Zone Command (Luftgaukommando) XVI headquarters in General Wever-Strasse; this command reported directly to the Führer's headquarters, currently located in the Reich Chancellery in Berlin. But soon after the first bombs had fallen on the city the electricity supply to the telephone exchange, the basement of which also housed the Dresden air raid warning post, failed; the emergency power supply in the building was irreparably crushed by a collapsing wall.

With the silencing of the air raid warning post there was no quick way of informing Berlin of the air raids or of forwarding reports from the observation posts in Saxony to the Fighter Command divisional headquarters at Döberitz near Berlin. It was not until after the second raid was over than Dresden managed to pass an appeal to Berlin for emergency fire fighting forces. At once the Berlin fire brigade sent detachments of appliances down the autobahn to Dresden, but it would be three hours before they could arrive.[9]

At 1:05 a.m. civil defence engineer Georg Feydt visited the city's gauleiter, Martin Mutschmann, in the central command post, a concrete bunker beneath the Albertinum across the road from the police headquarters. The bunker was packed with Nazi Party and civil defence officials, small though it was. They were still trying to build up a picture of the destruction, trying to discover the main seat of the fire-storm. But just as the destruction of telegraph wires and the breakdown of the exchanges prevented appeals for help from being dispatched, so it also threw into confusion the communications with fire watchers and local civil defence posts.

The final police report states that the full alert was given at 1:07 P.M. – though the sirens no longer had the electric power to sound it – and that the bombs started falling fifteen minutes later at 1:22 a.m., which closely agrees with the R.A.F.'s timings. Within half an hour to forty-five minutes a fire-storm had begun. The police logged the last bombs falling at 1:54 A.M. – probably they were in fact bombs with delayed-action fuses detonating. According to the immediate report of the civil police commander of Dresden, evidently intercepted by Allied code breakers and now in American archives, the second attack lasted twenty-four minutes. Dresden itself was down and out for the count. The police assessed that most of the bomb load this time was high explosive, dropped on the already blazing city centre and on the outer areas to which the population had taken refuge (the Grosser Garten, and other parks and open areas.) Just as there had been no warning, the final police report stated that because of the total collapse of the main siren network and of all telecommunications no all clear could be sounded either, to announce the departure of the last British bombers.

The Germans estimated that in the first raid the R.A.F. had dropped three thousand high explosive bombs, four hundred thousand incendiaries, and 2,500 'fire-jet bombs' – known to the British as J-bombs, filled with oil and phosphorus – and 4,500 high explosive bombs, 170,000 incendiaries, and two thousand fire-jet bombs in the second. The police chief noticed the phenomenon that while entire streets of buildings had been flattened, there was comparatively little cratering to the streets themselves, from which he drew the rather odd and certainly inaccurate conclusion that the bombers had attacked at low level. A third of the incendiaries had small

explosive charges added to deter fire fighters. A large number of long-delay time-bombs had been dropped. By mid March the German authorities had located 331 unexploded bombs. To add to the long-term dislocation, the bombers had also dropped bundles of psychological-warfare leaflets and millions of fake ration cards.[10] Civil defence and rescue operations were badly hampered by the onset of the second raid. Within a few minutes the Party headquarters in the Albertinum was surrounded by blazing buildings, and the massive sandstone structure was in danger of being gutted itself. The gauleiter and his staff made a dash for safety through the blazing streets and collapsing inner city into the open areas beyond; that same night, according to an official account, all reported for duty at the emergency control room built in Lockwitzgrund. Lockwitz was a village some five miles south-east of Dresden, where the Nazi Party had prepared an auxiliary gau headquarters for just such an emergency as this.

The gauleiter succeeded in passing an appeal to the Neustadt barracks to the north of the river. The barracks had escaped damage in the first raid, as had the whole new town area. The army hastily organised five hundred soldiers into squads of eight to fifteen men and ordered them to report to police headquarters. As they marched down the northern slopes of the Elbe valley they could see the city stretched out before them, and the whole city was on fire.

The police headquarters itself had a cellar which was several storeys deep. At this stage between the raids, there were still wounded people being brought in for attention. There was much coming and going. Everywhere there were policemen, civil defence workers, and many officials in Nazi uniforms. 'Most of the people were apparently waiting for instructions,' recalled one of the squad leaders, underlining the chaos in the communications. 'But my impression was that although everybody was very tense the scene was not without order.'

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Among those watching from afar was Tania, who talked about it years later on a Canadian television programme. She had been sent to Auschwitz, the brutal slave labour and transit camp run by the S.S., in 1944: 'After standing a whole night naked

in Auschwitz we were given wooden shoes and a dress,' she said, in halting English, 'and we shipped off in a cattle car, and we did not know where we went, but when we arrived at our destination it was Freiberg in Saxony.' There were five hundred Polish girls and five hundred Czech girls in this shipment, she said, all Jews: 'We all came from Auschwitz.' In Freiberg they were put to work in an aeroplane factory. 'It was on a hill with a very tall building, we were living in the fourth or fifth floor. We worked there twelve hours every day.'

On the evening of February 13 they had the second of their twice daily roll calls, standing five in a row to be counted; then they were released to their lice-infested bunks.

That night the guards turned the lights off earlier than usual, although there had been no sirens. Looking out of the windows she could not see the usual female guards or sentries either. Something was clearly happening. 'Then we heard this very distant rumbling, like blasting, and we knew that something was going on. We were very happy… We all went to the window and we saw the most fantastic sight that I have ever seen in my life, it was something like fantastic fireworks, all colours, it was going on all night long, it was blue and yellow and green, and of course to us it was a beautiful sight. It was a fantastic occasion to rejoice.'

She had often worried about their factory being bombed. 'But why those beautiful fireworks, I never knew. I was very curious to know what that was.'[11]

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The Dresden fire brigade headquarters was in Annen-Strasse in the old city. It housed one of central Germany's finest fire brigades. The service had often been in action after big fire raids on other nearby cities, so they in no way lacked experience. Fire brigade director Ortloph had carefully decentralised his forces, placing reinforced brigades in Neustadt at the Luisen-Strasse fire station and in Striesen, and permanently locating fire engines near buildings of special cultural importance like the castle and the Frauenkirche cathedral.

After the first raid most of the city's native fire appliances were sent to the castle to try and save it from the flames; few however arrived, and those that did found no

pressure in the water hydrants. Other appliances attempted to save the City Hall, again without success, for their thick hoses had been perforated by showers of burning embers in the air. Firemen ran hoses all the way down Ostra-Allee to the Zwinger's lake to try to save the Playhouse, but they were too late and this building also succumbed to the flames. Twenty-three kilometres of fire hose were destroyed in the raids.[12]

Towns all over Saxony had sent their fire-fighting units in motion to the Dresden immediately after the first raid. As they drew near, the glow they could see beyond the horizon told its own story of what was happening. By one a.m. the first of these 'foreign' fire brigades were penetrating the city's outskirts. The police report stated that altogether four companies of police were in action, together with fire brigade troops from Frankenberg, Berlin, Leipzig, Gera, Senftenberg, Chemnitz, Halle, Riesa, and Oppeln and a score of volunteer fire brigades and factory fire brigades.

Here in Dresden they met their sudden and unexpected end. The electric sirens could not provide any warning of the second raid. Some statistics hints at the story of what happened in the desperate hours that followed: The fire brigade dispatched from Bad Schandau to Dresden, ten miles away, arrived soon after one A.M. From the men of this brigade there was not one survivor. All were 'overwhelmed' by the second raid.[13] Of sixty-six police horses, forty-four were killed. More than half of the city's police and firefighting vehicles were wrecked.[14] 'The fire fighting forces and passive defences of the city,' the Allied air commanders could dryly summarise, 'were overwhelmed by the double-blow.'

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As was the case everywhere else in Germany, Dresden's civil defence organisation was incorporated in the Nazi party structure with the city's police chief (Polizeipräsident) in the ex officio position of Civil Defence Director.[15] Everybody had a role to play, down not only to the Hitler Youth but also to the Deutsches Jungvolk, an organisation comparable with the Wolf Cubs.

'In February 1945 I was fifteen years old,' records one such Deutsches Jungvolk boy, 'and during the period of Total War my duty was as a Luftschutzmelder, an air

raid message runner.' His story demonstrates how the collapse of communications inside Dresden would have been incomplete without the swiftly following second R.A.F. blow. 'February 13 was the day of our great Shrove Tuesday carnival, and I spent the evening at the Circus Sarassani, which has a permanent building in Dresden Neustadt. During the last number of the programme, a hilarious performance of donkey-riding by the clowns, the Full Alarm was sounded over the loudspeakers. The audience, amid the jokes of the clowns, was instructed to make its way to the vaulted basement of the Circus building. Because of my messenger's pass I was allowed out of the building.'

He found the city already lit as bright as day by the first white parachute flares set by the Illuminator Lancasters. Like most of the native Dresdeners the youngster had no inkling of what these strange lights meant. 'At the time I was deeply impressed by the flares. Dresden Neustadt was not hit at all during the first raid, so I ran home immediately. There was nothing to be done there, so according to orders I reported for duty as a runner at the Party headquarters in the local group (Ortsgruppe) Hansa of the Nazi Party in Grossenhainer-Strasse. The Ortsgruppenführer in his S.A. ('brownshirt') uniform issued damage reports to me and the other boys to take to the civil defence control room in the centre of the inner city. We were given blue steel helmets, gas masks, and bicycles and set off. The castle, the Residence Church, and the Opera were already burning fiercely and the bridges across the Elbe were strewn with spent or still burning incendiaries. Single fire-fighting appliances, recognisable by their colour as being from Dresden, were trying to reach the fires. The streets were flooding with water from burst mains. Already the first tugging winds of the fire-storm could be felt. The gallant but hardly properly equipped civil defence runners had only penetrated as far as Post-Platz when the second raid began. They could only take refuge in a hospital basement near the Post-Platz. The messages were still in their hands, and they would never be delivered.

Thus the civil defence organisation in the centre of the city was largely ignorant of the development of the fires. The second raid had begun just at the right time. The soldiers from the neighbouring barracks, in so far as they had already been committed to action, would be trapped in blazing areas where they would find no refuge.

The fire brigades from the neighbouring towns were also in the heart of the areas now marked out for the attack; and the civil defence leaders were ignorant of the location of the main fires as one after another their telegraphic, telephone, radio, and finally personal lines of communication were severed.

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During post-war years the legend grew up around this unlucky city, encouraged by the occupation authorities, that not only was Dresden undefended by guns or fighter aircraft, but no kind of civil defence precautions had been taken.

This was true only to a limited extent. It was not considered necessary to build public air raid bunkers of the kind which had saved the lives of hundreds of thousands of people in other fire-storm cities. In Hamburg even the hospitals had been provided with special bunkers, and by June 1, 1943 there were four operating theatres and three maternity suites installed in air raid bunkers. In Dresden neither of the biggest hospitals, those in the Friedrichsstadt and Johannstadt suburbs, had such amenities.[16] Little attempt had been made to provide alternative sources of water, or electric power for the pumping stations, in the event of major damage to the water mains or the breakdown of the electricity supply. This is not surprising, since nobody had expected that Dresden would be bombed. When it was announced late in 1944 that as part of the 'expanded Führer programme' a sum of money was to be devoted to civil defence measures, the city's population had reacted with a measure of hilarity and disbelief.[17]

From the beginning of the war onwards the air raid police (Luftschutzpolizei) had worked in two shifts on the construction of an escape tunnel network; they had erected large static water tanks on the Altmarkt square, on Seidnitzer-Platz, and in Sidonien Strasse, and they had begun building underground water tanks as well. 'Train loads of concrete were used on these schemes, not just truckloads,' emphasises the city's civil defence engineer of the time; the measures were directed senior architects of the city's School of Architecture. Without doubt the citizens of Dresden were better protected at that time against air raids than those of many comparable

British towns who through themselves safe with their Morrison or Anderson shelters, contrivances which, in a fire-storm, would have become death-traps.

Later on, as Dresden filled with refugees from east and west, and as the rumble of guns from the eastern front could sometimes be heard, the city's authorities did adopt further limited measures of protection for the population. Schoolchildren were put to work digging out zig-zag lines of splinter-proof trenches on Bismarck- and Wiener-Platz – on either side of the central railroad station – on Barbarossa-Platz and in most of the parks and green strips in the city. A complex system of *Mauerdurchbrüche* was built – specially prepared weak spots in the parting walls separating the cellars of neighbouring houses; in an emergency, if the houses caught fire during localised air raids, the inhabitants could break through to the next door cellar with the pick-axes and other tools required by law to be on hand in each basement, and escape through that. If however that house was also on fire the people could smash their way through from one cellar to another.

These measures had been adequate for the small attacks which other cities, and even Dresden itself, had suffered up to February 1945. Nobody however could have foreseen the tornado of fire and flame which was to engulf the Saxon capital. The cellars and basements of each nineteenth-century house were sheltering some eighty or ninety people when the attack began, with more and more people clambering down the steps from the street. When the first raid subsided the rush to escape began. Again and again the same circumstances prevailed: refugees from the eastern marchlands who had never before heard a siren's wail or a bomb's explosion now found themselves trapped at the heart of one of the biggest conflagrations in history. They could not escape on to the streets, for these were swept by forty and fifty foot long jets of flame. They could only surge from one cellar to the next, smashing through the partition breaches until finally they reached the open air – or the end of the street. Sometimes several hundred people packed into the last cellar of the street, or were checked in their flight by collapsed houses. There they either broke out, somehow, into the open air to meet their fate, or waited for developments. This is the only explanation of the disproportionate numbers of victims found later in basements at the either end of such labyrinths.

This contingency had in fact been foreseen by the Hamburg police president, S.S. Gruppenführer Kehrl, when he advocated the construction of such an underground system of escape routes. After referring to the 'terrifying' number of people killed in basements in the fire-storm areas, he recommended that where rows of houses were interrupted by cross streets the houses on opposite sides of the street should be connected by tunnels.[18] His advice had not however been heeded in Dresden, and a system which might have averted such a major tragedy if completed, led there to the deaths of large numbers of people not hitherto endangered by carbon monoxide or smoke fumes, as we shall now see.

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Most people hoped that the fires caused by the first raid would soon subside and that they would then be able to emerge unscathed and with their personal property intact. Thus the majority of the people were still waiting in their cellars and underground tunnels at 1:30 A.M. when without warning the bombs began to fall again.

'The detonations shook the cellar walls. The sound of the explosions mingled with a strange new sound, which seemed to draw closer and closer, like the sound of a thundering waterfall,' describes the commander of a Reichsarbeitsdienst (R.A.D.) transport company surprised by the second British raid after he had hastened in convoy to the rescue from a village outside the city. 'It was the sound of the might tornado howling into the inner city, where the fire bombs had concentrated in the first attack.' He and his men had taken refuge in the cellar of a house. Within seconds this house received a direct hit and collapsed, but fortunately for them the meagrely supported cellar ceiling held firm.[19]

'When the raid ebbed,' reports another R.A.D. commander similarly trapped with his men, 'I confirmed for myself that we were surrounded on all sides by fire: enormous flames were sweeping the streets. It was out of the question for people to leave the house direct without being burnt alive. I learned from the others that some ten houses further down the street there was an open square, by the Circus Sarassani building. I ordered my men to break through the breaches from house to house, and so we together with a growing throng of people finally stormed out into the open air.

In the middle of the square was the round circus building; I believe there had been a special Carnival night performance. The building was burning fiercely, and was collapsing even as we watched. In a nearby street I saw a terrified group of dappled circus horses with brightly coloured trappings standing in a circle close to each other.'[20]

These magnificent Arab horses did not have long to live. During the second R.A.F. attack forty-eight of the horses from the Circus Sarassani were killed. In the days following the raids their carcasses were to be dragged down to the Elbe's northern embankment, the Königsufer, between the Albert and Augustus bridges, where on February 16 a grim scene was witnessed with the arrival of a flock of vultures which had escaped from the City's zoo.

However in many cases people, finding that the dense, suffocating fumes from above were rolling down into the unventilated basements, broke down the wall-breaches – and the smoke had access to the next cellar as well. This was a dilemma which would have confounded even the citizens of Hamburg and Cologne, hardened though they were by long exposure to Allied air attacks. To the million inhabitants of Dresden on the night of February 13, lulled into a false sense of security, and totally unversed in civil defence practice, the dilemma because a nightmare, a nightmare to which many of the people finally resigned themselves.

A cavalry captain on the way to his unit on the eastern front recounts in detail the fate which befell the people who were with him during this second attack. Between sixty and eighty of them, mostly elderly people and children, were to lose their lives as a result of the carbon monoxide fumes infiltrating into their makeshift shelter. The captain's billet had been in Kaulbach Strasse, a street in the heart of the area which became a fire-storm centre during the second raid. 'Kaulbach Strasse was filled with smoke and sparks,' he related 'Somebody foolishly broke down the wall-breach from the next door cellar; that house was burning fiercely, and the sound of crackling flames and dense smoke poured in. Something had to be done. I informed the people in my cellar that we would all suffocate in the cellar if we did not get out into the open. I told all the people to soak their coats in the regulation fire buckets placed in the cellar. Only a few agreed, as the women were very unwilling to ruin their valuable fur coats like this: these were the first things they had taken with them. I ordered

them all to gather behind me on the staircase, and to run out with me onto the street when I shouted 'Now!'. Only a few of them joined me at the staircase, and of these half turned back when they saw the flames. My passionate appeals to them did not have any effect, so I finally shouted the order and myself ran up into the street. Only a handful followed me.'[21]

An officer with the courage of this cavalry captain, decorated incidentally with one of Germany's highest military awards, might risk his life in this way and escape to tell the story. The majority of the people in Dresden were neither young nor brave; many made the unwitting choice to die in their own homes rather than to run the gauntlet of these terrifying fires. As it turned out, those cellar-breaches were the doom of the cavalry of[5]cer's former companions.

'After a very short while,' reports a woman, herself an evacuee from Cologne, trapped in another basement, 'we had to put on our gas masks and goggles. Smoke and fumes were pouring through the breaches in the cellar walls from the cellars on both sides. There were no gas masks however for the infants. The people who suffered most were the elderly and the children. With my own eyes I had to watch as a three week old baby suffocated in the arms of its mother.'[22]

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There was an extensive tunnel system extending underneath the Post-Platz square. This proved of little avail however when it came to the test; while the tunnels did indeed connect the main administrative buildings around the square, and while other streets nearby were also provided with these tunnel networks, the scale of the firestorm was such that they proved virtually useless. The ventilation in the Ostra Allee tunnel broke down, causing many casualties.[23] As the whole of the inner city was on fire the tunnel exits were all effectively sealed by flames.

A switchboard operator on duty in the telephone exchange recalls how the whole staff had to take refuge in the in the bomb-proof emergency exchange in the basement of the building; after the second raid the whole block was on fire and they realised that they would have to escape through one of the other buildings. As they made for the escape tunnels, however, a stream of people came toward them. 'The

Post Office savings bank had been hit by an air mine,' related this switchboard girl, 'and from the basements of nearby private houses a stream of people poured out of the underground connecting tunnels. I remember seeing one old woman who had lost a leg. Some of the other girls suggested making a dash for home through the streets. A staircase led from the Telephone Exchange basement to a glass-roofed courtyard. The Exchange had been build around this quadrangle. Their idea was to escape through the courtyard's main gate onto the Post-Platz. I did not like the idea, and paused; all at once, just as the girls – twelve or thirteen of them – had run across the courtyard and were struggling to open the main gate, the red-hot glass roof came crashing down, burying them all beneath it. The whole telephone exchange building was by now on fire.'[24]

Had the half-hearted civil defence measures in Dresden been completed, had there been adequate provision of properly ventilated bunkers, as in other German cities, had there been an invulnerable back-up siren system and independent water supply for the hydrants, then the catastrophe which befell Dresden during the fourteen hours of the triple blow could perhaps have been averted. In view of the Nazi leaders' belief that Dresden would never be bombed, these shortcomings may appear excusable. Nevertheless tens of thousand of the city's population were now to pay for their leaders' lack of foresight with their lives.

[1] H Lloyd to the author, Dec 1, 1960; and J W Willis, Dec 9, 1960.

[2] Hans Schmall, Giessen, to the author, Jul 21, 1961.

[3] Hanns Voigt, Bielefeld, Jun 6, 1961.

[4] S.S. Gruppenführer Kehrl, 'Bericht des Polizeipräsidenten in Hamburg als örtlicher Luftschutzleiter über die schweren Großangriffe auf Hamburg in Juli / August 1943.'

[5] Quoted by Wilhelm Sander in *Züricher Stadt Anzeiger*, Mar 22, 1945.

[6] Quoted by Max Seydewitz in *Zerstörung und Wiederaufbau von Dresden* (Dresden, 1955).

[7] Author's interview of Hans Kremhöller, Hamburg, Apr 24, 1961.

[8] Hans Schmall to the author, Jun 5, 1961.

[9] Major-General Hans Rumpf to the author, Jun 10, 1961; author's interview with Dresden fire

brigade director Ortloph, Apr 27, 1962.

[10] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[11] Report of Civil Police Commander of Dresden, GP.4009, dated Feb 14, 1945, document No.506.55a (Maxwell AFB: USAF Historical Division Archives). This was evidently an Ultra intercept.

[12] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[13] 'Public Eye,' Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

[14] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[15] Seydewitz, op. cit.; also Diplom-Ingenieur Georg Feydt, 'Civil Defence Engineer,' an article in *Ziviler Luftschutz*, (Koblenz), the organ of the German ministry of civil defence, Apr 1953.

[16] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[17] Günter Arnold to the author, Apr 25 and May 26, 1961.

[18] Kehrl, loc. cit.; Seydewitz, loc. cit.

[19] Karl-Heinz Zimmermann to the author, May 24, 1961.

[20] Seydewitz, loc. cit.; Arnold to the author, May 26, 1961.

[21] Kehrl, loc. cit.

[22] Gerhard Nagel, of Lippstadt, to the author, Jul 8, 1961.

[23] Heinrich Prediger to the author, Jul 5, 1961.

[24] Rittmeister a.D. Dr. jur. Wolf Recktenwald to the author, Nov 15, 1960, and interview of Apr 19, 1961; a thirty year friendship between Judge Recktenwald and the author followed. –Years later Recktenwald found the letter that he wrote to his mother on Feb 15, 1945: 'Then the great adventure began,' he wrote. 'I arrived in Dresden late on the twelfth, and stayed there on the thirteenth too in a nice furnished room found for me by the rail transport office for me, because there was no billet for me at K[önigsbrück]. There I went through the terror raid on the night of the 13–14th, I lost my luggage but I'm alright myself. I got out okay with a young woman and her four month old baby in my arms. If only we could pay the British and American criminals back in their own coin!'

[25] Kate Zimmermann, of Recklinghausen, to the author, Sep 17, 1961.

[26] Gertrud Nimmow to the author, Mar 15, 1961.

[27] Eva Antons née Miersch, of Osnabrück, to the author, Apr 25, May 29, Jun 29, 1961.

The Victims

The American bombers of the third blow had still not arrived at midday when the first columns of rescue and salvage workers began pouring into Dresden from all over central Germany. Local civil defence leaders had at last found means of broadcasting an appeal, and motorised columns with emergency food supplies, medical aid, and several battalions of TN-engineers (*Technische Nothilfe*: emergency technical aid) were heading for the city. From as far afield as Berlin and Linz in upper Austria squads of able bodied men were being impressed to take join in the fire fighting and rescue work.[1] In addition civil defence police and fire-protection police were in action in the rescue operations.[2]

The Hilfszug 'Hermann Göring', a motorised convoy of soup kitchens, first-aid trucks and mobile electric generators had arrived at Nord Platz in Dresden Neustadt. A second convoy, the Hilfszug 'Goebbels' was making its way to Dresden's Seidnitz suburb.[3] Although there were in each convoy only about twenty trucks, they brought desperately needed succour for the city. By February 16 more Hilfszüge were arriving from every region in the province of Saxony to provide hot and cold meals for the homeless families and rescue workers. 'Nobody will go short of food,' the Nazi party's local newspaper declared proudly on the seventeenth.[4] The city's emergency stores were broken out, and a special issue of 'morale rations' was authorised. As from February 20 all residents over eighteen years of age were given rather under two ounces of coffee each, and half a bottle of schnapps; those under eighteen were allocated a tin of condensed milk.

Nearly all of the hospitals had been put out of action, as we shall see, and the need for immediate first aid was urgent. The gau's chief inspector of health, Fennholz, directed all bombed out doctors and dispensing chemists to report at once to the German Red Cross headquarters in Wasa Strasse for emergency work. Those doc-

tors unable to reach this temporary headquarters on foot – it was nearly five miles northwest of the city centre – were directed to report to the Party's nearest Ortsgruppe, which would requisition homes and other private buildings for them to set up surgeries.

The Party organisation worked well. It ensured together with the Red Cross that the tens of thousands of mothers in the population, especially those with infants and babies to care for, knew where to obtain milk and baby-food. At the main railroad stations in Dresden, badly damaged though they were, relief centres run by the *Bund deutscher Mädchen* and *Frauenschaften* – the Party's equivalent of the Girl Guides and the Women's Voluntary Service – were speedily set up. 'It was,' said one bombed out women whose infant was only ten days old at the time of the raids, 'a real act of kindness on the part of the Party that we could get baby-food and warm drinks for the children, and bread for the grown-ups.'[5]

The small acts of kindness by the Party had succeeded in restoring morale in other cities visited by Bomber Command; in Dresden however morale was damaged more than warm drinks and baby-food could effectively repair.

Arriving too in Dresden was General Erich Hampe, director of emergency repair operations for the German railroad system after air attacks. He had travelled through the night from Berlin with an aide as soon as word had reached him that Dresden was under attack. 'I could not immediately reach the central station,' he later reported, 'because the way into the city from the west was completely blocked. I made a wide detour round the city and came in through the northeast sector, crossing the river by the Loschwitz bridge. The first living thing I saw on entering the city was not a person – I saw few alive, but many dead – but a great llama. It had apparently escaped from the circus. Everything in the inner city was destroyed, but my concern was only for the central station and the railroad system. I looked everywhere for the Dresden stationmaster but he was nowhere to be found. None of the leading railroad officials was available. I had to send for a leading Reichsbahn (national railways) official from Berlin to help me sort out the tangle and discuss what had to be done to get the traffic flowing again.'

The first stage was to clear the debris from the station halls and fill in the bomb craters along the railway embankments. This work was done by soldiers, prisoners of war, and forced labourers. The second stage, the construction of emergency lines, was the duty of Hampe's special technical troops. In Dresden he had two battalions of these engineer troops, each of fifteen hundred men, mostly elderly engineers beyond military age.[6]

The carnage at the central station was the worst that General Hampe had ever seen. The building itself was a large, nineteenth-century structure, its platforms covered by a single glass-and-iron arch extending the length of the station. On the night of the attack there had been a train standing at every platform of the ground-level Dresden terminus beneath this arched roof; on either side of the terminus station, supported by concrete piers, there were two high-level express tracks that conveyed the through traffic between Czechoslovakia and Berlin.

Two days before the last official refugee train from the eastern front had arrived in the city, its passengers crammed into primitive wagons and even boxcars. Even after that however the refugees had still continued pouring into the city, packing the regular passenger trains coming from the east, mostly without tickets and often without anything else. In addition to those still trickling in by rail on the night of the attack there were the farmers and peasants whose horses and carts had clogged the ice- and snow-covered roads since the beginning of the great Soviet offensive just four weeks before. These endless, well organised refugee 'treks', each with its designated 'Führer', had been directed one after another to the designated reception areas – like the Grosser Garten, where many thousands of them had died in the blindly released showers of incendiaries and high explosive.[7] A Swiss resident of Dresden who had taken refuge in these gardens near the palace witnessed the unnerving sight of people trying to tear the burning two-inch thick firebombs out of their own bodies.[8] Other treks had been diverted to the exhibition grounds, where hundreds of people were burned to death by the blazing oil flowing from wrecked military transport dumps being built up there.

Still other treks, of refugees intending to travel on westwards, had been sent to the public squares on either side of the central station. Few of the refugees who were

standing in line at the station on the evening of Shrove Tuesday escaped with their lives. Only one train which was at the station as the sirens sounded escaped to the west, the express to Augsburg and Munich.[9]

In the vaulted basement beneath the central station there were five roomy gangways in which there was room for some two thousand people. In spite of the heavily reinforced concrete roofs over these gangways, which had to carry the weight of the two tiers of trains passing overhead, the city's civil defence engineers had not made provision for their use as air raid shelters: there were neither blast-proof doors nor ventilation plants fitted into them. In fact the city had provided for the temporary housing of several thousand refugees from Silesia and East Prussia, together with their baggage, in these underground passages beneath the station, where they were cared for by the Red Cross, the female labour service, the Frauenschaften, and the N.S.V. (the Party's welfare service). In any other city the combination of so many people, and so much inflammable material, in such a vulnerable and potentially dangerous location as the central station would have appeared suicidal. But in the face of Dresden's believed immunity from attack on the one hand, and the pressure on every usable living space for the refugees on the other – it was after all mid winter – it is hard to be censorial.

'Even the stairs to the high level platforms had been blocked by the piles of baggage heaped on them,' described the Führer of one refugee column arriving in the central station on the night of the attack. The platforms themselves were overflowing with people, the crowds surging back and forth as each empty train arrived from the west. Amidst impatient loudspeaker announcements to board trains as quickly as possible, amidst the hoots of the locomotives and the sound of escaping steam, the wild rush to clamber aboard began, with Silesians mixing with Rhinelanders, the Berliners jostling Bavarians, squeezing bulging sacks and cases through the carriage windows.' Outside in Bismarck- and Wiener-Platz, the two station squares, there were further endless lines of people waiting to get in.

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Into this chaos and confusion had sounded the Full Alarm at 9:41 P.M. on February 13, 1945, echoing suddenly and clearly across the city from Klotzsche in the north to Räcknitz in the south, from western Friedrichstadt to the suburbs in the east. Every light in the central station went out, leaving the station brie⁶y lit only by the signal lamps at each end of the platform hall before they too were doused. Station officials hastened to empty all the trains so that they could be hauled out into the open. The people were however apathetic, and refused to admit the possibility of an air raid. Many refugees had waited for several days in line for these trains, and they were unwilling to forfeit their places because of what might well be Dresden's one hundred and seventy-second false alarm. Two trains had just arrived from Königsbrück full of evacuated Deutsches Jungvolk children; they had been sent to the K.L.V. evacuee camps in the eastern provinces, but these were now being overrun by the Red Army. Another train from Königsbrück was unloading soldiers on leave or on their way to Berlin. Only the Munich express was ready to depart. Several white painted hospital trains, converted sleeping cars, were standing on the trough lines together with a train due to depart for Halle and Berlin soon after midnight. The hospital trains had brought back thousands of wounded soldiers from the east, where the military hospitals had been completely evacuated, to the famous hospitals and clinics of Dresden as well as to the former schools and public buildings which had been taken over by the medical authorities during the past seven days. A British prisoner who had been forced to work in the extensive Dresden posts office and parcels sheds near the Friedrichstadt marshalling yards witnessed the distressing sight of the 'blood wagons' being hauled and shunted gently through the Rosen Strasse station into Dresden from the eastern front to the hospital sidings where ambulances were waiting. Every day for weeks the white trains, with coach doors locked and curtains drawn, had been arriving at Dresden – the 'hospital city' of popular belief, which 'would never be bombed.'[10]

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In spite of the crowds and confusion inside the station hall, by 10:10 P.M. when the first bombs began to fall every train had been shunted out into the open. The loud-

speakers instructed everybody to go down to the roomy vaults beneath the platforms. At first few obeyed, but as the bombs began to fall a stampede began.

The station lay outside the sector marked out for attack in the first blow by No 5 Bomber Group, and apart from minor incendiary fires and blown out window panes little damage had been done to the station by the time the first raid had passed. It was then that the railroad officials made what was to prove a fatal mistake. The disruption of communications between Dresden, Berlin, and the Observation Corps outposts had left the city's civil defence leaders completely ignorant of the air situation. Believing that Dresden had seen the last of the Royal Air Force that night the stationmaster ordered the trains shunted back into the station hall again. One after another the empty carriages were hauled back to the platforms, and the turmoil and confusion began anew. Within three hours the station was working at top pressure again, with the streams of people from the inner city, which was now well ablaze, adding to the confusion. The platforms were again thronged with Red Cross and welfare workers, with refugees, evacuees and soldiers. Totally without warning the second attack now began, and this time the station was clearly right in the heart of the area under attack.

Two trains filled with evacuee children, between twelve and fourteen years old, had been left standing on the open yards outside the station, near the Falkenbrücke bridge. After the first attack had passed over the station without incident, the evacuee camp leader, a Party official of some fifty-five years,. had unwisely explained to the curious children that the white 'Christmas-tree' flares marked out the area for the bombers to destroy. With the unexpected return of the bombers he must have cursed himself for his tactlessness; although he hastily ordered the youngsters to draw the blinds, they could not help but see that the parachute flares this time seemed to be marking out a broad rectangle all round them.[11] Thousands of incendiary bombs began raining through the fragile glass roof of the station hall. A heavy bomb landed in the yards overturning a locomotive and hurling one of its driving wheels into a passenger coach full of people fifty feet away.[12] Within seconds the mounds of baggage and cases inside the station hall were in flames, pouring out dense fumes and choking smoke. Clouds of steam from the shattered locomotives tumbled into the

air. Incendiary bombs penetrated the platform baggage elevator-shafts, filling the unventilated tunnels beneath, where many people had taken refuge, with poisonous fumes and devouring the precious air. One young mother who had just arrived in a passenger train from Silesia, travelling for four days without even a ticket, had taken shelter in this network of tunnels as the first raid began. She had chosen to come here with her two infant children because her husband had written to her from Dresden that there was an agreement that the city would not be bombed because, he said, 'the Allies want it for their post-war German capital.' 'I struggled with all my might to reach an empty corner of the basement. With wild determination I just made it. Only one thing saved me and five or six others in that cellar: I had pushed through into a boiler room, beneath one of the platforms. In the thin ceiling was a hole made by a dud incendiary. Through this hole we were now and again able to get sufficient air from outside to breathe. I held wet rags across my two babies' faces; I lost mine in the crush and began coughing violently. Everybody else seemed to be leading against us. Several hours passed. Then I heard someone shouting and an army officer helped me out through a long passage. We passed through the basement. There must have been several thousand people there, all lying very still.' On the square there were thousands of people standing packed shoulder to shoulder, not panicking but very mute and still. Above them the fires raged. At the station entrance the heaps of dead children and others were already being piled up, as they were brought out of the station. 'There must have been a children's train at the station. More and more dead were stacked up. I took away one of their blankets for one of my babies, who were not dead but alive and terribly cold.' In the morning some elderly S.A. men came and one of them helped me and my family to get through the town to safety.' Among the victims were children in carnival costumes who might perhaps have been waiting at the station to meet their parents coming from the east.

While only the fortuitous piercing of the ceiling had saved this handful of people in the station boiler room several thousands had not been so fortunate. Of some two thousand refugees from the east who had been billeted in the only tunnel in which any reinforcing measures had been taken. One hundred had been burned to death by direct incendiary action; but five hundred more had been suffocated by the fumes, as

the station's civil defence director later reported.[13] The people lay in the underground tunnels of the station, describes one eye-witness, 'as though somebody had ordered them all to lie down.' They were piled up, face down, in clusters as though they had sought safety in numbers.

'I had left all the baby clothes and medicines in my bags beneath the platforms,' continues the account of the refugee woman from Silesia. 'It was at first after the great raids quite impossible to obtain any baby clothes, so I ventured to visit Dresden and the station again. The station cellars had been cordoned off by S.S. and police units. There was danger of typhus they said. Nevertheless I was permitted to enter the main cellar accompanied by a one-armed Reichsbahn official He warned me that there was nobody alive down there, everybody was quite dead. What I saw was a nightmare, lit as it was only by the dim light of the railway man's lantern. Only the thought of my children's need gave me strength, as I searched for my things. The valuables had all been looted. The whole of the basement was covered with several layers of people, all very dead.'

Once again the majority of people in the central station had fallen victim, not to the hundreds of high-explosive bombs, so much as to the 650,000 incendiaries dropped on the city. Most of the fatalities had been caused by the inhalation of hot gases, and by carbon monoxide and smoke-poisoning. To a lesser extent lack of oxygen had contributed to the death-roll.

'What we noticed when we escaped,' recalled one Panzer-grenadier office, 'were not so much dead bodies as people who had apparently fallen asleep, slumped against the station walls.' He had had to change trains at Dresden en route to Berlin, and had had the foresight to leave the baggage tunnel in which he and his men were sheltering as son as it started to fill with smoke. Of his eighty-six men less than thirty survived the night to arrive in the Reich capital, yet another illustration of the colossal weight of the attack; but also an indication that at least at the central station the victims of the terrible triple blow were not all the elderly civilians, women, and children that post-war writers would have us believe.[14]

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British aircraft carried out the first reconnaissance flight over Dresden on the day after the raids. Negative K. 3742 showed great material damage, and the interpreters could see that fires had already destroyed part of the city. The large Dresden-Friedrichsstadt marshalling yards had been scarcely damaged. The photograph showed twenty-four goods, passenger and hospital trains standing in the marshalling yards after the raids, while all around the buildings were burning fiercely, very large areas of flame being visible. Of the three engine roundhouses in the yards, one had been hit by incendiaries at one end. In the goods yards could be seen over four hundred boxcars and carriages, still perfectly ordered, waiting on the sidings and weigh bridges, with scarcely a gap in their ranks. Large fires were still raging in the working class suburb of Friedrichstadt and smoke was billowing from the buildings of the Friedrichstadt hospital. On the fifteenth another attempt was made to obtain photographs, but the fires still burning more than thirty-six hours after the attack generated such haze that the photographs were difficult to interpret.[15]

It would be March 22 before the R.A.F.'s photographic reconnaissance planes obtained clear photographs of the city. From their study of these, Bomber Command's operational research section reached some surprising conclusions: the two British raids, they said, had devastated 85% of the fully built up area (they presumed that the American raids of October 7, January 16, and February 14, 15 and March 21 had done less damage to the areas). 'Rail facilities and industries suffered immense damage,' they claimed.[16] Dresden's old town was 'virtually wiped out' along with most of the inner suburbs, but the outskirts had escaped comparatively lightly. The photo interpreters detected that the gasworks and two tramway depots had been severely damaged, and aghain they insisted that the railway facilities had suffered particularly heavily: 'The bridges over the Elbe and public buildings,' the analysts reported, were 'well hit.' 'Barracks and military camps were less troubled, being mostly situated on the outskirts,' and a number of industries had escaped for the same reason. 'But the total damage was very great indeed.'[17]

In fact the damage to the railways was more than questionable. While the incendiaries proved their worth as anti-personnel weapons, and in starting a general conflagration in the city itself, they were hardly the best weapons for an attack on the

city as a 'main communications and railway centre', as was claimed immediately afterward by the Allied governments. The railway system in Dresden – the permanent ways and railroad installations – was very little damaged even by the third attack delivered, as the U.S. Army Air Forces explained, against 'marshalling yards' at Dresden. That this lack of damage had not passed unnoticed by the Allied air commanders is confirmed by Mission Report No 266 of the Americans' 390th Bombardment Group, relating to the later attack on Dresden on March 2, 1945: 'The crews were diverted by weather from an oil assignment [against Ruhland]. The great Dresden marshalling yards were the PFF [pathfinder force] target, one of the few north to south channels into Czechoslovakia which had not been bombed severely.'*

In view of the Allied insistence that the triple blow was delivered to disrupt the traffic through the city, and that the attack was highly successful in this respect, some estimate should be reached for the time during which the main lines through the city were unserviceable.

The police chief's report stated that the central station was completely knocked out, with the destruction of all its platforms, buildings, signalling and tracking equipment; ten trains had been caught in the station by the raid and completely burnt out. At the city's Neustadt station a refugee train and a hospital train had burned out completely, and another refugee train had been badly damaged. At the nearby freight yard a munitions train had exploded, and 105 railway carriages, 655 goods wagons, and thirty mail wagons had burned out in the shunting yards at Dresden's minor Old Town station. The postal buildings were also wrecked.[18]

With the arrival of General Hampe and his two battalions of engineers in Dresden, salvage and repair work to the railway system commenced at once. He was not concerned with repairing the station buildings or facilities; his concern was to set the rail traffic moving through the city again as soon as possible. He found the main Marienbrücke railway bridge across the river undamaged apart from a scorched patch where an incendiary bomb had burned itself out. 'If they had really wanted to disrupt the traffic through the city,' a rather puzzled General Hampe later observed, 'they need only have concentrated on this one bridge. It would have taken many weeks to replace during which time all railway traffic would have had to make long detours.

One need only remember the dislocation of both rail and river traffic caused by the collapse of the Hohenzollern bridge across the Rhine at Cologne.'[19] Working day and night Hampe and his special troops were able to open up a double line of railway track for normal working within only three days of the raids, while his experts supervised gangs of forced labourers in the execution of heavy repairs to road bridges, especially on the Dresden–Plauen sector of the railway system.[20] 'The importance of Dresden as a railroad centre, which was considerable,' declared Hampe later, 'was not diminished by more than three days as a result of these three air raids.'

This observation must seem surprising when viewed in the light of the Allied claims that the attack on Dresden's transportation installations had been a success. These claims could hardly have been expressed in stronger terms: the official American history of the U.S. Army Air Forces operations in the European theatre, while referring sceptically to how the R.A.F.'s post-raid report 'went to unusual length to explain how the city had grown into a great industrial centre and was therefore an important target,' itself then continued with the palliative, but no less dubious report that 'if casualties were exceptionally high and damage to residential areas great, it was also evident that [Dresden's] industrial and transportation establishments had been blotted out.'[21]

The final report of the Dresden police chief, which is now available, confirms that the bridges were not taken out: like the Augustus, Carola, Loschwitz, and Nossen road bridges, the Marienbrücke railroad bridge was damaged, though not seriously; only the Augustus road bridge was damaged seriously enough to be still closed to traffic at the time of the police report in mid March 1945.[22]

It was the same with the actual railroads through the town. Rail transport through the city – the ostensible target of the raids – had barely suffered, confirmed the police chief. Although traffic had halted for a few days, by the end of the month the trains were rolling through again.[23] Years later, the east German (Soviet zone) history of the destruction and reconstruction of Dresden stated: 'The railroad lines were not particularly seriously damaged; an emergency service was able to repair them so swiftly that no significant dislocation of traffic resulted.' After referring to the devastation wrought on the city's architectural treasures the history continued that 'in

contrast to these cultural monuments and the entire Dresden inner city, these transport installations were not destroyed. The damage to them was relatively light, so that traffic to and from Dresden was not really interrupted at all; one example was how the debris on the railroad lines at the Central Station was cleared away within only a few hours, and the trains diverted to temporary tracks.' Regular trains were running again through Dresden Neustadt by February 15.

West German postwar accounts of the destruction in Dresden also draw attention to the miraculous escape of the railroads. A writer in one newspaper reported on the eighth anniversary of the raids that he had seen Dresden three days after the attacks. 'The supplies were rolling virtually unhindered to the eastern front. The railways were running, in spite of the general destruction all around.' At the same time an authoritative Munich newspaper, irritated by a U.S. State Department announcement that Dresden had been bombed on Soviet instructions to hinder the movement of troop reinforcements through Dresden, editorialized: 'The explanation … patently flies in the face of the facts. The railroad between Dresden and the Czech frontier – the one in question – is built between a mountain chain and the river Elbe.' To destroy these lines, the newspaper suggested, would have been simple for the marksmen of the Royal Air Force. No strategist could honestly assume that German troops would in fact be marching in massed formations through the centre of the city to the eastern front. 'On the contrary,' the newspaper continued, 'One is amazed at the extraordinary precision with which the residential sections of the city were destroyed, but not the important installations. Dresden central station was full of mounds of corpses, but the railway lines had been only slightly damaged and after a short period were in service again. The same went for the railroad line crossing the Elbe in the direction of Meissen and Chemnitz.'[24]

[1] G Conway to the author, Feb 18, 1961; Karl Forstner, of Linz; and Seydewitz, loc. cit.

[2] Georg Feydt, *Ziviler Luftschutz*, Apr 1953.

[3] Alfred Hempel, of Dortmund, to the author, Jun 9, 1961; Hanns Voigt to the author, May 12,

1962.

[4] *Der Freitheitskampf*, Feb 17, 1945 (Dresden city archives).

[5] Elsa Ködel, of Tauberbbischofsheim, to the author, Aug 6, 1961.

[6] General Erich Hampe to the author, and interview on Apr 21, 1961.

[7] Otto Thon, of Krefeld, to the author; he was one such refugee column leader.

[8] Wilhelm Sander, in *Züricher Stadt Anzeiger*, Mar 22, 1945.

[9] Hanns Voigt, diary for Feb 1945 (copy in the author's possession).

[10] Dennis Brock, article in ex-prisoner of war magazine *Clarion*, and interview with the author on Apr 9, 1961.

[11] Heinz Buchholz, of Köln-Sülz, to the author, Jun 10, 1961.

[12] Dennis Brock, interview with the author, Apr 9, 1961.

[13] Luftschutzleiter Schöne, quoted by Seydeitz, loc. cit.; also Hanne Kessler, of Wülfrath, to the author, May 28, 1961.

[14] Hans Kremhöller to the author, Apr 24, 1961 and interview with the author.

[15] 'Immediate Interpretation Report No. K 3742,' Feb 15, 1945 (PRO file AIR.40/803).

[16] Imperial War Museum, London: photograph negative No. C–4973: 'Friedrichstadt marshalling yards.'

[17] COS Committee weekly resumé No.286, week ending Feb 22, 1945: COS(30) 1945, and WP(106)1945 (P{RO file CAB.80/47).

[18] PRU Negatives K 4020 and K 4171.

[19] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35).

[20] RAF Bomber Command, Report BC/S. 26342/2/ORS4 (dated May 3, 1945) on Night Operations, 13/14th February, 1945 (PRO file AIR */*) (Author's microfilm DI–35).

[21] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[22] Author's interview with Hampe, Apr 21, 1961.

[23] Horst Galle, of Herbede, to the author, Jun 16, 1961.

[24] U.S. Government Printing Office, *The Army Air Forces in World War II*, vol.iii.

[25] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[26] Ibid.

[27] *Passauer Neue Presse*, Feb 14, 1953.

[28] *Süddeutsche Zeitung*, Feb 22, 1953.

Abteilung Tote

EARLY ON THE MORNING of February 14, 1945 thousands of British prisoners in the camps outside Dresden were awakened and marched into the city for their usual work clearing bomb damage: although the whole city was still burning fiercely from the night's raids, the men were still directed to their former workplace, a school in Wettiner Strasse that had been damaged in the small American raid of October 1944. At eleven o'clock however the prisoners were marched back into their camps and told that they would not be needed for the rest of the day. Rescue work in the inner city was still impossible, with furnace heat in the narrow streets and none of the cellars yet cooled enough to enter.

This early return saved many British lives, because only an hour later the prisoners of war might have been caught by the American attack. Evidently the city's civil defence officials had learnt the lesson of the first and second raids, and they were unwilling to endanger further rescue forces in any subsequent attacks. Thus the fires were able to burn uncontrolled for fourteen hours or more, and few efforts were made to fight a path through to those still surviving in the roomy underground catacombs of the city. In Kassel, it will be remembered, the swift decision to use the 'water-alley' technique had saved the lives of several thousand people trapped in the city's Hochbunker in the heart of the fire-storm area even before the raid was over.

Only at four P.M., some three and a half hours after the American raid had passed, were the first large scale rescue operations set in motion. Companies of soldiers from the King Albert barracks in Dresden Neustadt were loaded onto trucks with storm equipment, gas masks, steel helmets, water bottles, digging tools and food for one day. On the eastern banks of the Elbe the columns of trucks were halted: al-

though only the Carolabrücke was impassable and the other bridges were for the most part undamaged they were still deemed unsafe for motor vehicles; besides, they had been mined four days previously and the demolition charges might be detonated by any new vibrations.

As the soldiers were marched in single file across the Augustus bridge many must have paused and gazed at the scarred Dresden skyline. Most of the familiar landmarks had vanished; many of the church and cathedral spires had collapsed; the castle was still blazing, and the dusk was darkened by the masses of smoke still swirling slowly up into the sky. Miraculously however Dresden's most famous landmark, the three hundred foot dome of the Frauenkirche cathedral, was still standing, the grey smoke pall drifting round the gold cross on its summit. The Frauenkirche had survived many wars: it was from this very dome that the young Goethe had in 1768 surveyed the devastation wrought by the long bombardment by the artillery of King Frederick II of Prussia in the Seven Years War. (Canaletto's portrayal of the ruins in Dresden bear an uncanny resemblance to the destruction after February 1945.) If the Frauenkirche was still standing, then somehow the destruction of Dresden was incomplete.

One unit of soldiers, about a hundred men from an interpreter company, was sent to the Brühl'sche Terrasse on the western Elbe embankment. Many people had fled into the cellars, built like gun embrasures beneath this terrace, in the false belief that they would provide refuge from the fires. The four hundred year old tunnels had strongly vaulted ceilings, and, divided into many sections, ran the length of the Terrasse. Had Dresden been on the list of sixty most endangered cities of the original 'Führerprogramme' then without a doubt these vaults, with accommodation for about ten thousand, would have made ideal public shelters when equipped with the necessary ventilation gear and blast-proof doors. This had not however been done.

Most of those who had taken refuge there were dead, their lungs burst by the blast of the high explosive bombs. Nevertheless the soldiers had to find any survivors and carry the wounded across the bridges to the trucks waiting on the other side, which transported them to the military hospitals and the many luxury clinics in the Weisser Hirsch, the city's famous hospital suburb. There were no stretchers available; all the

stocks of stretchers had been burned. No attempt was made as yet to remove the dead.

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By this time the civilian population was completely dazed by the weight of the blow which had befallen Dresden. The war, from which their city had kept itself aloof for so long, had erupted with a sudden savagery over their heads. Just a few hours before Dresden had been a fairy tale city of spires and cobbled streets, where it was possible to admire the crowded shop-windows, where the evening hours did not bring the gloomy of a total blackout, where the windows were till unbroken and the curtains had not been removed, a city where the evening streets had been full of people thronging their way home from gala performances of the circus, the opera, or the scores of cinemas and theatres which, even in these days of 'total war', had been playing to full houses. Now the columns of soldiers were marching into the centre of a city strangely quiet and very empty of other live human beings.

The ferocity of the American daylight raid of February 14 had finally brought the people to their knees. The sky had been well overcast, and the bombs dropped by the Flying Fortresses were widely scattered around their supposed aiming points. Again no sirens heralded either the commencement or ending of the attack (12:15 and 12:25 P.M.), as the British raids had destroyed even the mobile siren equipment.[1] The police stated that in this first American raid the suburbs of Löbtau, Friedrichstadt, and Gotta were damaged, while the second, on the fifteenth, hit the districts of Plauen, the southern suburbs and the suburbs of Tolkewitz, Laubegast, Loschwitz and Oberloschwitz.

It was not however the 474·5 tons of high explosive bombs and 296·5 tons of incendiaries which the Americans dropped in the first raid which finally demoralized the people – compared with the night's British bombardment by two- and four ton 'blockbusters,' the American five-hundred pound General Purpose bombs must have seemed very tame. It was when the Mustang fighters suddenly appeared low over the streets, firing on everything that moved, and machine-gunning the columns of trucks heading for the city. 'Strafing by machine guns was observed during all the raids,'

states the Dresden police chief's official report.[2] One section of the Mustangs concentrated on the river banks, where masses of bombed out people had gathered. Another section took on the targets in the Grosser Garten area. These strafing attacks were apparently designed to perfect the task outlined in the air commanders' directives as 'causing confusion in the civilian evacuation from the east.'

Civilian reaction to them was immediate and universal. 'We were in Lenne Strasse just by the Grosser Garten,' related one woman, evacuated with her ministry from Berlin to Dresden. 'I and one or two others were able to save ourselves beneath some wooden benches. The fighter aircraft came right down and a woman near us suddenly screamed out, shot in the stomach. There were no cars or doctors; they came along afterwards and took her away on a hand cart. Long after she was out of sight we could still hear the woman screaming.'[3]

The American fighter planes also strafed the Tiergarten Strasse, the road bordering the Grosser Garten on the southern side. Here the remnants of the famous Kreuzkirche children's choir had taken refuge. Casualties on record here include the choir inspector, seriously wounded, and one of the choirboys killed.[4] British prisoners who had been released from their burning camps were among those to suffer the discomfort of being strafed on the river banks and they later confirmed the shattering effect the attacks had on morale. Everywhere where columns of people were trudging in or out of the city they were pounced on by the fighter planes and machine gunned or raked with cannon fire.[5] (U.S. Air Force historians have pointed out, 'Nothing in the records can be found to substantiate such claims,' and it is only fair to record this.[6])

Memories may be fickle, of course, and eye-witness testimony is ever suspect. 'We had just passed under the Leipziger Strasse railroad bridge when waves of fighters swooped down and began firing their machine guns at us and into the people swarming out of the city,' described another survivor.[7] 'On the banks of the river there were Red Cross trucks parked without any drivers,' recounted a Breslau refugee who had spent the night and early morning at the water's edge. 'Suddenly we heard the roar of aircraft engines. A terrible panic seized us. The Red Cross trucks were full of badly wounded soldiers being taken out of the cities. Those who were still able to

move jumped clear of the trucks and ran into the ruins. My sister and I ran after them. At a street corner stood another Red Cross truck filled with soldiers. We could hear the aircraft diving low and then they began firing from all their guns. We were fortunate, we were able to crawl into a doorway. The soldiers tumbled out of the truck, more dead than alive. One was hit by a bullet and fell to the ground. The Red Cross truck burst into flames.'[8] Such low level strafing attacks later became a permanent feature of American attacks.

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There was after the triple blow on Dresden an immediate and urgent need for hospital accommodation. But the hospital situation was desperate: not only had Dresden before the time of the attack been relied on as a main centre for convalescing and wounded soldiers from every front, but in the triple blow nearly all the hospitals converted from schools and public buildings had been hit, and out of Dresden's nineteen major permanent hospitals sixteen had been damaged in varying degrees and three totally destroyed. The police report states that in the whole city and its surrounding areas there were by mid March only 780 surviving hospital beds.[9] An example of the fate of the temporary military hospitals was provided by the Vitzthum High School, serving as an hospital with five hundred fully occupied beds. It proved possible to evacuated some two hundred of these invalids in the half-hour between the full alarm and the attack; the rest perished.[10]

Other temporary arrangements were made for caring for limited numbers of wounded and sick civilians from Dresden. The inappropriately named 'Haus Sonnenschein' at Pirna – a euthanasia hospital for disposing of the incurable mentally disabled – was turned over to meet the needs of the truck loads of patients arriving in the town from Dresden.[11] The bunker being blasted by an S.S. construction unit into the solid rock face near the Mordgrundbrücke bridge as a future command post, was also placed by the commanding S.S. general at the disposal of the Red Cross for setting up a temporary hospital and shelter for the homeless.[12] The sixty-foot thick roof made the bunker absolutely bomb-proof.[13]

Of the two largest hospitals in the city, the Friedrichstadt and Johannstadt, the former was still partially habitable while the latter was completely wrecked and unusable. The Johannstadt hospital complex in the east of the city also the city's biggest maternity clinic, the Frauenklinik. 'When the Pathfinders appeared over the city,' the director of the clinic later wrote. 'the clinics had still not been completely cleared. The warning period was too short. The bombs started falling to the west of us, and the last patients, among them women recently operated on, hastened down stairs into the basement. A blockbuster hit B wing. Two labour wards, an operating theatre, the maternity wards, the gynæcological surgery and the sterilisation equipment in the three departments were destroyed.'[14] Immediate attempts were made to transfer the patients from B wing to A wing. A section of A wing began to burn however and the patients there had to be evacuated there too. French forced labourers arrived to joint in rescue operations at the Frauenklinik and, later, German rescue gangs carried to safety some patients who had recently been operated on and they evacuated the shelter provided for newborn infants.'

'Only when daylight came,' continued the director's account, 'could we appreciate the scale of the catastrophe which had befallen our clinic. A wing was burning so fiercely that fighting the fires was out of the question. B wing was largely destroyed by the five high explosives bombs which had hit it. C wing was wrecked down to the ground floor and already burned out. D wing also showed heavy damage. Only E wing had escaped lightly, although its roof too was on fire.' The bombs of the American daylight attack by-passed the Frauenklinik, but one solitary Mustang fighter machine-gunned C, D, and E wings.

An indication of the amount of damage done to Dresden's hospitals is the scale of the casualties. In the Frauenklinik in Johannstadt, where the damage is best documented, some two hundred people had been killed; of these only 138 could be identified. There was the familiar pattern of the fire-storm aftermath: in Kassel 31.2 percent of the total victims (5,830) could not be identified. In this clinic at Johannstadt the unidentified percentage was thirty-one. Of those dead who were identified, eleven were nurses, twenty-one were student midwives, nurses and orderlies, two were

French rescue workers, and nine were men of the German rescue gang; of the ninety five killed who had been patients, forty five were expectant mothers.

For the rest of the war this large hospital was out of commission. Arrangements were made for the city's surviving expectant mothers to be transferred to the undamaged wing of the Friedrichstadt general hospital. Several wards had to be cleared for the purpose, adding to the obvious problem of surgical care for the thousands of people injured by the raids. Meanwhile the routine medical care of the population had to be continued: diabetics had to be instructed where to obtain supplies of insulin, for example; those who had lost their prescriptions had to be re-examined and given new prescriptions. The process was inevitably slow, and many sick and injured died before the could be given proper attention. Gradually the already enormous death roll crept higher. Still no organised attempt at rescuing those trapped beneath the fallen masonry had been begun.

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As we have recorded, it was not until the late afternoon of Ash Wednesday, February 14, that even the troops stationed in the city's barracks were assigned to rescue operations. For many units stationed further afield the delay was even longer. At Königsbrück, where units were assembling for action on the eastern front, the Dresden situation had still not been realised two days after the attacks owing probably to a failure of communications. One army officer who had arrived from the burning city addressed himself directly to the commanding officers of the troops and suggested that all men should be marched into Dresden to dig out those people still buried in the ruins; he received the reply that until orders were received from above, such action was unthinkable.

Not the least among the difficulties was that the seat of the fire-storm and therefore of the damage to life and limb in the city was on the left bank of the Elbe, while Königsbrück and most other troops concentrastions were on the right bank. The left bank of the Elbe was designated as the 'home front' (Heimatkriegsgebiet) while everything east of the river was assigned to the 'rearward army district' (rückwärtiger Heeresgebiet).[15] Thus any initiative for such troop movements had to come from the

appropriate authorities. Only on February 16 did the necessary marching orders arrive; the army eventually provided fifteen hundred to two thousand men for rescue and salvage operations.[16]

In the case of the Allied prisoners of war caged in or near Dresden, of whom there were over twenty thousand at the time of the attack, the instructions to join in rescue work came even later. Although there were over 230 Allied prisoners for example in one working detachment, No 1326 in Dresden-Übigau, after their narrow escape of February 14 no further working parties were put together until February 21 when 150 of the prisoners were ordered by Army District IV to march in gangs of thirty, fifty, and seventy men into the city to assist in salvage operations. For a whole week before that the men were confined to camp.[17] Eventually five hundred to a thousand prisoners of war were marched in to help rescue and salvage operations. A prisoner of war caged in Dresden's big slaughterhouse remarks that although the area around the complex was badly damaged their German guards forced them to march right across the city each morning to a site in eastern Dresden, and the same route back each night; the intention was, he felt, to 'rub their noses' in the horrors that their fellow countrymen had caused, as well as to promote the recruiting drive for prisoners to join a 'Free British Corps' to fight the Russians on the eastern front. After these raids many prisoners did in fact volunteer for this corps, including one camp's 'man of confidence.'[18]

Most of the British prisoners worked with a will at their allotted rescue and salvage tasks. Even before the orders were received several hundred prisoners had volunteered for the work.

Several were to pay for their willingness with their lives when, after living for weeks on diminishing prison rations their rescue operations inevitably brought them within reach of food stores in wrecked shops and hotels. Thus an American from a camp in Dresden Plauen was found with a tin of food concealed in his uniform during a routine search; a young Canadian soldier was caught smuggling a looted gammon of ham into the camp in Dresden-Übigau. Both were shot by firing squads. German and non-German looters alike were given the same short shrift. A German labourer was found to have secreted between 150 and 180 wedding rings in his pockets

in Grunaer Strasse; he was executed on the spot.[19] 'So far seventy-nine looters have been arrested by police, in particular by special patrols,' stated Dresden's chief of police in mid-March, 1945. 'A large number has already been executed.'[20]

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In Dresden the authorities had declared a state of emergency on February 17, 1945.

> On the orders of the gauleiter [announced the local Party newspaper] a number of plunderers and looters was shot on the spot yesterday, immediately after their apprehension. Where plunderers are discovered they must be handed over at once to Party officials or their representatives; Gauleiter Mutschmann has no intention of allowing any kind of softness in this, his so cruelly tested gau. This is a matter for the whole community; he who commits a crime against the community is worthy only of death.[21]

Not only looters were being executed in Dresden, adding to the enormous death-roll of the triple blow. It was ascertained that 'unscrupulous elements' were spreading rumours which were both uninformed and unkind.

> The rumour-monger serves only the enemy's interests, and he must expect immediate death. The gauleiter has decreed that all rumour-mongers are to be shot out of hand; this has already happened in certain cases.

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For several days the thousands of victims lay strewn about the streets where they had been overwhelmed by the raids. In some cases limbs had been bodily torn off; in others, the victims seemed to have just fallen asleep, and only their greenish pallor betrayed that they were no longer alive. In the parks there were bodies dangling from the branches of trees where the blast waves had tossed them. Here and on the

banks of the river were scattered the corpses of those who had fallen to the strafing attacks of the fighter planes. Some people died soon after being dug out of their cellars. Six people were rescued alive from a cellar beneath the operating theatre of the Johannstadt Frauenklinik; five of them, all women, died soon afterwards, 'apparently from internal injuries.' An official who inspected the main Johannstadt hospital complex after the raids has described how in the hospital gardens there were torn children's bodies tossed up onto walls, hanging from the branches of trees, and scattered over a wide area, such was the force of the heavy bombs dropped.

After their two day delay the troops were now worked hard, digging feverishly for survivors. The soldiers had to work for twenty-hours straight off with very little food. Each neighbouring city had contributed a rescue company, and it was up to each city to make adequate provision for them. Generally this system worked efficiently, but by the time of the Dresden catastrophe all sort of organisation had collapsed and rescue troops could not expect a meal until they were relieved by further troops.

'The work was very demanding,' relates one soldier detailed for these rescue operations. 'It took four men to carry out each injured survivor. Other soldiers before us had already started removing the rubble and opening up the cellars. Sometimes twenty, sometimes more people had sought shelter in them from the bombs. The fire had robbed them of oxygen and the heat must have tortured them terribly. We were lucky to find here and there one or two still alive. This went on for hours. Later on we were ordered to the sub-basements of the buildings. We found a dozen frightened women and children who did not date to leave the cellars. As the building was still burning and might collapse and bury them at any moment, we dragged them out by force.'

'All over the ground,' he continued, 'lay these corpses – shrivelled by the intense heat to about three feet in length. A sweet smell of putrescence and burnt flesh – a filthy, sickly smell – pervaded the whole city.' He and his company later set to work rescuing survivors trapped in the gutted opera, where there had been a special performance on the night of the attack. This Gottfried Semper building had seen the premieres of Wagner's 'Rienzi,' 'The Flying Dutchman,' and 'Tannhäuser'; and, more recently, of Richard Strauss' 'Der Rosenkavalier.' Now it would present no more

musical masterpieces to the world. Like the Circus Sarassani it had collapsed, leaving only a crumpled shell, with many people buried beneath the ruins.

'Many of the people had gone out of their minds when we finally reached them in the opera cellars,' related this soldier further. 'They refused to come out. On the way back to the barracks that night, after working a twenty-four hour shift, we passed an overturned cart in the street. A refugee from the east, about sixty years old, was trapped beneath it with both his legs broken. he cried out for water as we passed him.' The man had been lying trapped there for nearly three days shouting for attention, but so severe was the damage to the city that nobody had yet found time to free him.

As the columns of soldiers were marched back across the river they could see that the dome of the Frauenkirche had now collapsed as well. Stored in the basement of the cathedral were extensive film archives of the German air ministry, and just when the cathedral's fire fighters thought that they had controlled the flames the celluloid rolls had ignited with explosive violence.

The dome had collapsed at 10:15 A.M. on Thursday morning, February 15.

With this sad event the destruction of the city's architecture, too, was complete.

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At 7:15 p.m. on February 14, sleepless and with his hands trembling, Hitler had a forty-five minute talk with Dr Goebbels. He was the picture of dejection. 'They flatten the Dresden opera house and wipe out refugees,' exclaimed Hitler, 'but Stettin harbour, jam-packed with troop transports, they leave alone!'

Dresden's police headquarters had been bombed out. In American archives is the intercept of the text of the first report on the raids radioed – since all telegraph lines were down – by the civil police commander in Dresden, SS Gruppenführer Werner von Alvensleben; the signal was deciphered by British codebreakers.

> *Preliminary report:* Heavy terror-raid on Dresden. Bombs dropped on Dresden from 22:09 to 22:35 hrs. In the whole city area heavy high explosive bombs and great fires, especially in the quarter of the Inner City. *Hit:* Opera House, Catholic

Hofkirche, Japanese Palace, Museum of Hygiene, Railway Directorates offices, several hospitals, Exhibition Palace, T-s-nberg Palace – , at least 3,000 high explosive and 25,000 incendiary bombs estimated. Forces from outside called in.

Barrack Area Albertstadt: Rifle Barracks, Adolf Hitler Barracks, Army Provisioning Office, Magazine Building, Ammunition Depot. Outward communications also interrupted. Even stronger attack from 01:24 to 01:48 hrs, chiefly high explosive bombs, some of them of the heaviest calibre.

'In the raging conflagration that arose almost complete destruction of the city must be anticipated,' concluded the police commander. 'Estimated that 500,000 are homeless. Reich assistance on the greatest scale immediately and urgently required.'[22]

Deprecating the use of such hysterical language, Heinrich Himmler, the S.S. Reichsführer, radioed back to Alvensleben this nonchalant message:

I have received your report. The attacks were obviously very severe, yet every first air raid always gives the impression that the town has been completely destroyed. Take all necessary measures at once. I am sending you at once a particularly able S.S. Führer for your staff, whom you may find useful in the present difficult situation. All the best.[23]

Alvensleben sent a further telex on the fifteenth. The Reichsführer S.S. followed this radiogram with a particularly heartless letter to the police chief by mail:

My dear Alvensleben!

I received your telex of February 15.

1. Approve relocating your office but only to suburbs of Dresden. Any further out would make a rotten impression.

2. Now is the time for iron steadfastness and immediate action to restore order. You are to see to it that power, water supplies and public transport immediately are restored. I'm prepared to send you S.S. Obergruppenführer Hildebrandt to

help you so that you have a comrade who can be effective for you in various other locations outside Dresden.

3. Set me a good example of calm and nerve!

Heil Hitler. Yours, H HIMMLER.[24]

Alvensleben transferred his headquarters as S.S. and Polizeiführer together with those of the Security Police and the S.D. (security service) to the half-completed rock bunker being blasted into the cliff face at Dresden's Mordgrundbrücke bridge.

Four days after the raids the local Party newspaper published the first announcement requesting people searching for their next of kin to contact a newly set up *Vermissten-Suchstelle* – a missing persons search bureau – housed in the still-intact Saxon ministry of the interior building on the Königsufer embankment of the Elbe. The newspaper announced: 'Postcards – not letters or other forms of communications – must contain the pre-raid address and name of the persons being sought, and the name and post-raid address of the searchers.'[25] This was the first small step in the gargantuan task of trying to reunite the thousands of families which had been sundered by the triple blow.

At the same time, a more ominous organisation had been set up, compiling a registry of people who were missing and unlikely to be found alive again. In each of Dresden's seven municipal districts a *Vermissten-Nachweis* – register of missing persons – was established. The registers for the boroughs of Weisser Hirsch and Dresden-Central were held in the local city halls; those for the boroughs of Blasewitz, Strehlen, and Cotta were in the local elementary schools; the register for Trachau was in Dobelner Strasse, and that in Leuben was in a former children's nursery at No 15 Neuberin Strasse, and it was to this latter bureau that all inquiries about victims with no permanent address in Dresden, including refugees, soldiers, forced labourers and other transients were to be addressed. At this centre a *Vermissten-Nachweis-zentrale (VNZ)* or central bureau of missing persons, had been established immediately after the raids to collate the information from the six others.

On the morning of February 15, Hanns Voigt, an assistant master at one of the schools in the city which had been closed down, like so many schools in the Dresden

area, eleven days earlier for conversion into a Luftwaffe hospital, was ordered to report to this VNZ office at Leuben, some seven miles to the south-east of the city. This part of Dresden could expect to be spared further air raid damage, and it had the advantage of being on the left bank or the river – prevailing opinion in Dresden expected the Russians to arrive shortly. They were after all only some seventy miles away by now.

Voigt was given the task of establishing and organising an *Abteilung Tote* for the VNZ, a Dead Persons Department which would take over the records and personal effects of all people already known to have died, as well as those still to be recovered from the ruins of the city.

For two weeks, with characteristic German thoroughness, he collected assistants and formulated a plan for what was to prove perhaps the biggest task of identification and registration in history. On March 1 Voigt was able to report to the VNZ that his department was fully operational, with a total complement of clerks and officials numbering over seventy; a further three hundred were employed in the VNZ. The Dead Persons' Section would be responsible for identification of the victims and for arriving at some final estimate of the death roll. On March 6 the department was recognised by the Reich and incorporated into the VNZ.

The bureaucratic thoroughness with which we have all come to associate the German people was well demonstrated by this macabre institution. Dresden was divided for the purposes of identification procedure into seven operational districts, each with its own central SHD office: the SHD was the *Sicherheits- und Hilfsdienst*, the service most commonly in action in blitzed cities. In Dresden Neustadt the SHD office was set up in the local town hall. In Blasewitz it was in the police station; in Friedrichstadt it was in the hospital complex, the only one in which some buildings were still standing. The recovery of the corpses was supervised by four squads of the Repair Service (Instandse*tzungsdienst*) and its four companies of medical orderlies, by two battalions of soldiers, and by the squads of the Emergency Technical Service (*Technische Nothilfe*). A command post for the *Instandsetzungsdienst* was set up in the concrete bunker beneath the police headquarters in the Albertinum building.

The organisation of the rescue work, identification, and body-counting was closely coordinated with the police headquarters in the Saxon ministry of the interior building on Königsufer. This issued its orders via a Ha*uptsammelstelle* (main assembly point) on the Weisser Hirsch to the SHD troops conducting the actual rescue and salvage operations. Officials of the new VNZ were at hand to supervise identification work on the spot. The bodies were lined up for one or two days in spaces cleared on the sidewalks for this purpose. All valuables including jewellery, papers, letters, and rings and other identification material found on the bodies was placed in separate paper envelopes. These envelopes bore a serial number and other essential information including the place and date that the corpse was found, the sex and, if known, the person's name. A colour-coded card was affixed to the victim with the same serial number. At the same time officers counted each head – literally – and these daily tallies, together with the truckloads of valuables recovered, were collected by the SHD officials of each of the seven district offices. Each night the VNZ assembled these envelopes and registered the names and serial numbers in its central indexes. After the contents of each envelope had been evaluated and all possible identification details extracted, the envelopes were sealed and passed to the Saxon ministry of the interior for safekeeping.

Some parts of the inner city remained so hot that the cellars could not be entered for several weeks. This was especially found where, contrary to regulations, large stocks of coal had been hoarded in collars and caught fire. (The Hamburg police chief had recommended after the raids there that coal and coke should be stored in *attics*, where experience showed them to be less vulnerable.) One street in Dresden's inner city was impassable for this reason for six weeks.[26] As in Hamburg, the usual grotesque aftermath of melted preserving-jars, pots, and pans, and even completely incinerated bricks and ceramic tiles, was found in some cellars in the centre of the city.[27] These too were indicative of the thousand-degree plus temperatures which had prevailed in the fire-storm area.

'The work of recovering the bodies was the hardest task,' the director of the *Instandsetzungsdienst* in Dresden later explained. 'The gases which had been collected

in the hot basements posed a very serious danger to our rescue gangs, as there were not enough gas masks to go round.'

Even more unpleasantly, for the first week after the raids the units of the Instandsetzungsdienst, the RAD and the SHD companies were obliged to work without rubber gloves – their whole stock of these items had been consumed by the fires. Experience in other fire-storm areas had demonstrated that recovery workers were readily exposed to disease and to what was identified as a 'post-mortem virus'. Rubber boots were also urgently needed: normally dry cellars and basements became impassable because of the serous fluids oozing from the mounds of corpses. For the first few days the men and women working on corpse-recovery had to work with bare hands or with only the most improvised protection. A week later supplies of rubber gloves did begin to arrive from all over Germany, finally accumulating in such quantities that a thriving black market in rubber gloves began.[28]

In this respect Dresden was as ill-prepared as Kassel had been for such a fire-storm. In Kassel too supplies had run low, and extra stocks had to be delivered by aircraft. Nor were these the only supplies lacking in Kassel. 'To combat the very strong stench of decay which arose after some days, all forces taking part in the recovery work were provided with cognac and cigarettes.'[29] Even eau-de-cologne and special soap rations were available at the time of the Kassel raids. Some salvage squads there wore gas masks with alcohol soaked pads inserted in the filter frame.

During the first weeks after the raids the city's police were entrusted with the task of loading the victims onto the wagons and supervising the attempt to keep a tally. It was grim work, but in Dresden not all the lessons of the earlier fire-storms about the personal needs of body-salvage crews had been lost. There were large emergency stocks of schnapps in the deep vaults of both the Albertinum and the Hygiene Museum near the Grosser Garten and these had remained intact; without regular issues of this schnapps and special cigarette rations, the unpleasant task of retrieving the corpses from the cellars, often under the most degrading conditions, would have been impossible for the forced labourers and others impressed for the task – the Ukrainians, the Romanians, the troops from the barracks, and the prisoners of war. Each day a police officer was delegated to collect thirty bottles of cognac for each

salvage gang from these stores. The Allied prisoners, held collectively responsible for the carnage, were not included in either the cognac or the cigarette issues.[30]

The female recovery workers, mostly supplied by the Reich Labour Service, were not permitted to drink alcohol; they were given twenty cigarettes a day to calm their nerves.[31] The first task was to clear the victims off the streets. 'One shape I shall never forget,' a Dresden survivor wrote to his mother after the raids, 'was the remains of what had apparently been a mother and child. They had shrivelled and charred into one piece, and had stuck rigidly to the asphalt. They had just been prised off it. The child must have been beneath its mother, because you could still clearly see its outline, with its mother's arms clasped around it.'[32] Nobody would ever be able to identify either again.

During the Hamburg raids in 1943, somebody had suggested to Dr Goebbels, increasingly being made responsible for coordinating civil defence ideas, that everybody be made to wear fireproof dog-tags to facilitate the identification of corpses. Goebbels, author of the evil idea that all Jews be made to wear the Yellow Star, had shuddered and discarded the idea.[33]

Now, in Dresden, where the fire-storm had raged the task of identification was all but impossible. 'All across the city we could see the victims lying face down, literally glued to the asphalt, which had softened and melted in the enormous heat,' described one of the soldiers engaged in recovery work.[34] The city's civil defence engineer Georg Feydt counted between 180 and 200 bodies lying in Ring Strasse alone.[35]

'A comrade asked me to help him find his wife in Muschinksi-Strasse,' described another soldier from the Neustadt barracks. 'The house was burnt out when we reached it. He shouted and shouted, hoping that people in the cellar might hear him. There was no answer. An old woman was sitting on a heap of broken bricks, singing to herself. He refused to give up the search and continued poking around in the cellars of neighbouring houses, even prising up charred torsos from the melted asphalt to see if his wife's was among them.' However even by inspecting their shoes the soldier was unable to identify her. His inability to recognize his own wife's remains was characteristic of the formidable problems facing the VNZ.

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'Never would I have thought that death could come to people in so many different ways,' said Hanns Voigt, director of the VNZ dead persons' section in Dresden. 'Never had I expected to see people buried in that state: burnt, cremated, torn, and crushed to death. Sometimes the victims looked like ordinary people apparently peacefully sleeping; the faces of others were racked with pain, the bodies stripped almost naked by the tornado. There were wretched refugees from the east clad only in rags, and people from the opera in all their finery. Here the victim was a shapeless lump, there a layer of ashes shovelled into a zinc tub. Across the city, along the streets wafted the unmistakable stench of putrefying flesh.'[36]

Some people had met extremely unpleasant ends, when the central heating systems were hit and the basements had flooded with scalding hot water. People who had taken refuge in the static water tanks had also in some parts been scalded to death. The water tank on the corner of Muschinski-Strasse for example had apparently boiled in the intense heat of the night's fire-storm. A score of corpses, their skin lobster-red from the heat, were floating in the water.[37] In other parts of the city this recourse had proven more successful. An army captain observed two men clambering out of another such static water tank on Grunaer Strasse very soon after the first attack: by sitting up to their necks in the water they had been able to avoid the showers of sparks, and escape the invisible grasp of the fire-storm tornado.[38]

In most cases death had been peaceful and slow. Probably over seventy percent of the casualties were caused by lack of oxygen or by carbon-monoxide poisoning. In one basement salvage workers found one hundred people, the greater part of them women, whom death had overtaken as they frantically scrambled for the basement exit. Tens of thousands of people had been trapped in the places, and sometimes frozen in the attitudes of the moment when this Pompeii-like catastrophe had engulfed their city.

[1] im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[2] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[3] Lieselotte Seifert, of Köln-Lindenthal, to the author, May 24, 1961.

[4] Max Seydewitz, *Zerstörung und Wiederaufbau von Dresden* (Dresden, 1955).

[5] Gerhard Nagel to the author, Jul 8, 1961.

[6] My comment in *The Destruction of Dresden* about American strafing generated an internal inquiry by US air force historians. Maurer, at Maxwell Air Force Base, minuted on Jan 20, 1964 that 20th Fighter Group had conducting strafing missions at Koblenz and Fulda. 'None of the other groups named in [your] inquiry strafed roads in and out of Dresden, or other targets at Dresden. Some squadrons (planes) strafed railroad yards at Dresden, but they were not those named by Irving.' (Maxwell AFB files: courtesy of JLS Hayward).

[7] John Heard, a prisoner of war, interview with the author, May 19, 1961.

[8] Anneliese Heilmeyer, of Köln-Braunsfeld, to the author, May 24, 1961.

[9] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[10] Seydewitz, loc. cit.

[11] Victor Scheide, of Leverküsen, interview with the author, May 22, 1961.

[12] Marga Staubesand, of Köln-Lindenthal, to the author, May 26, 1961.

[13] Seydewitz, loc. cit.

[14] Prof Fischer, quoted by Seydewitz.

[15] Captain Wolf Recktenwald, interview of Apr 19, 1961 and letters to the author.

[16] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dres-

den city archives) (Author's microfilm DI–35).

[17] Sergeant Gregory's camp diary of Arbeitskommando 1326.

[18] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[19] Ibid., and Dennis Brock to the author, Dec 1 and 31, 1960, Apr 10, 1961 and interview of Apr 9, 1961.

[20] Sergeant Gregory's camp diary of Arbeitskommando 1326; camp correspondence, and Dennis Brock, interview with the author, Apr 9, 1961.

[21] Margarete Führmeister, of Mannheim, interview of Jun 19, 1962.

[22] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[23] *Der Freiheitskampf*, Dresden, Feb 17, 1945 (Dresden city archives).

[24] Report of Civil Police Commander of Dresden to Chief of Civil Police, Luftgaukommando III: extract from ULTRA file GPD.4009, dated Feb 14, 1945, decrypt (English translation) in 2pp. SHAEF file, 'Dresden Attack,' ca. Mar 1945, document No.506.55a (Maxwell AFB: USAF Historical Division Archives).

[25] decrypt (English translation) in 2pp. SHAEF file, 'Dresden Attack,' ca. Mar 1945, document No.506.55a (Maxwell AFB: USAF Historical Division Archives); also cited in 'Ultra History of U.S. Strategic Air Force Europe vs. German Air Force,' Jun 1945 (NA, RG.457, file SRH–013); cited also by Walter F Angell Jr., 'Historical Analysis of the 14–15 February 1945 Bombings of Dresden.' (USAF Historical Division Archives), p.25.

[26] Himmler to von Alvensleben, Feb 15, 1945 (NA film T175, roll 40, page 550,553); the film has a folder of about 200 letters exchanged between Himmler and Alvensleben.

[27] *Der Freiheitskampf*, Dresden, Feb 19, 1945 (Dresden city archives).

[28] Hanns Voigt, of Bielefeld, to the author, Jun 5, 1961; he also made his diary available to the author.

[29] Hanns Schmall; and S.S. Gruppenführer Kehrl, 'Bericht des Polizeipräsidenten in Hamburg als

örtlicher Luftschutzleiter über die schweren Großangriffe auf Hamburg in Juli / August 1943.'

30 Georg Feydt, loc. cit.

31 'Erfahrungsbericht zum Luftangriff vom 22.10.1943 auf den Luftschutzort 1. Ordnung Kassel.'

32 Sergeant Gregory, camp diary, Arbeitskommando 1326.

33 Author's interview of Führmeister, Jun 19, 1962.

34 Ch. Th. Rademann to his mother, Feb 22, 1945, and author's interview with Rademann, of Helmstedt, on Apr 26, 1961.

35 Propaganda ministry, air war notice No. 13, Jul 27, 1943 (NA film T84, roll 322, 1121f).

36 Rudolf Schramm, of Buchholz near Hamburg, to the author, and interview of Apr 23, 1961.

37 Georg Feydt, loc. cit.

38 Hanns Voigt to the author, Jun 5, 1961.

39 Rudolf Schramm, author's interview, Apr 23, 1961.

40 Wolf Recktenwald to the author, Nov 15, 1960, and interview of Apr 19, 1961.

Anatomy of a Tragedy

'IT'S PROBABLY NOT very wide of the mark to relate this attack to the Crimea conference,' wrote a senior official of Dr Goebbels' propaganda ministry in his diary. 'Churchill has already accepted the plan to compensate Poland for areas east of the Curzon Line which have been annexed by the Russians, by presenting her with German territory. He has also agreed to the expulsion of seven to eight million Germans from this territory, and has announced in the House of Commons that "war's ups and downs" will create space in the rest of Germany for these seven to eight millions. Apparently Stalin has now called his attention to the approaching end of the war and has suggested that it is time that room be made in the way discussed. With Dresden, Churchill has fulfilled his first quota of 300,000 at one fell swoop.' The British prime minister, the Nazi diarist continued, could be proud of having killed 300,000 women, children, and defenceless civilians; it was something that nobody in history had ever achieved before.[1]

In fact we have already seen that at Yalta, nine days before Dresden, Mr Churchill had indeed expressed a robust view on the expendability of the German population. Discussing the very problem that Goebbels' official had mention, that of housing the refugees fleeing before the Red armies, Churchill had mused: 'Will there be room for them in what is left of Germany? We have killed six or seven million Germans and probably there will be an other million or so killed before the end of the war.'[2]

Not the least disturbing aspect of the shock wave felt in Berlin after the Allies' triple blow on Dresden was its effect on the higher echelons of the Nazi party and

government. For three months, in growing volume, Dr Goebbels had been preaching the story of the Morgenthau Plan – the American plan for postwar Germany which the enemy were supposed to be discussing at Yalta.[3] Now, suddenly and dramatically, the nightmare which they had created in their own disordered minds appeared to be coming true. Literally overnight, as the first figures current in Berlin showed, 'between two- and three-hundred thousand people' had been slaughtered in a great German city.

After the war, the controversy continued in the senior officers' prison camps. In a camp at Latimer, in Buckinghamshire in England, captured German generals were forced to watch newsreel pictures of the atrocities found in camps in north-western Germany. Karl Bodenschatz, who was Göring's chief aide and on Hitler's personal staff, told another Luftwaffe general that the scenes were contemptible, a Schweinerei: '*But* – given what happened in Germany with the air raids on residential areas the last two years there's no comparison, none whatever: if you'd seen Dresden – I was there, fifty-one thousand dead, women and children, in one night – then there's no comparison with photographs of three hundred or so people who've been shot. It's brutality, I grant you, but not in the same league.'[4]

The Dresden figures quoted varied widely. Thinking themselves unobserved, two German army generals were overheard saying they couldn't understand why the S.S. had not destroyed the evidence – 'But the British too killed over two hundred thousand in Dresden,' said one of them, in mitigation.[5] Other senior officers held opposing views on the psychological effects of the triple blow. 'When this catastrophe became known to the whole of Germany,' a colonel in the Luftwaffe's experimental research station admitted under interrogation, 'morale disintegrated everywhere.'[6]

The diary kept by Hitler's doctor shows that it certainly had a shattering effect on the Führer. Hitler's morale was 'poor,' Professor Theo Morell had noted on February 15 in his medical diary: 'Seems to be losing faith, thanks to the situation on the eastern front and the air raids on Dresden.'[7]

On the other side of the North Sea, in Britain, the next day, a British officer asked a German general in captivity what the likely effect of such raids would be. 'If Dresden is set on fire today,' answered the general, 'you'd expect the public attitude to be,

"We can't go on like this, they're smashing one city after the other." The actual effect on a large part of the people including the women is different: they say, "There you have it – it's pure destructiveness; they're wrecking everything, unloading their bombs onto innocent women and children. You can see they all hate us – they're all criminals, even the British are just hiding behind a mask while in reality it's the criminal element, the Jews" – they don't mean *Jews* as such, just the criminal element, the diabolical. That will be the reaction, so that despite these colossal casualties after every air raid, a sense of deep hatred is the outcome.'[8]

This view seems to have been no exception. 'The conflagration in Dresden nourished the suspicion that the western Allies were concerned only with the liquidation of the German Volk,' suggested the Inspector of German Fire Services in memoirs written after the war. 'For one last time Dresden brought the Germans together under the swastika-banner and drove them into the arms of their propaganda service, which now more credibly than ever could lay the accent on fear: fear of merciless air raids, fear of the accepted Morgenthau Plan, fear of extinction.'[9]

To those in Dresden who had survived the first attack, it seemed that all they had been told about the Allies' Morgenthau Plan was materialising only too quickly.

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On the Altmarkt square in Dresden, under the victory memorial built after the Franco-Prussian war, large static water tanks about ninety feet square had been built. At the end of the first raid, this square, which had been in the centre of the No 5 Group attack sector, and thus also in the heart of the first fire-storm area, rapidly filled with people from the surrounding buildings. The showers of sparks had begun to set their clothes and baggage on fire. Several hundred had tried to save themselves and extinguish their burning clothes by climbing into the eater tanks; but although the tanks' walls were about two and a half feet above the ground, in fact the water was over right feet deep. The sloping walls of the concrete tanks made it impossible to climb out again. Those who could swim were dragged under by those who could not. When the rescue gangs cleared their way through to the Altmarkt square next

afternoon, the tanks were half empty – the water having evaporated in the heat – and all the people were dead.[10]

South of the central station the fire-storm had cut a swathe of death. Even in the open squares the people had not been spared, but had died from heat radiation, from lack of oxygen, and from carbon-monoxide poisoning. Here too, even for the victims whose bodies had been untouched by fire, the chances of identification were slim. In hundreds of cases the clothing which would have contained identifiable personal effects had been torn off in the hurricane strength of the fire-storm.

The commanding officer of a Speer Organisation trucking company based on Dresden was faced with a terrible sight when he and his men finally struggled through to Lindenau Platz, a square to the south of the central station where their headquarters were situated. 'Lindenau Platz measured about one hundred yards by 150 yards,' he wrote. 'In the centre lay an old man, with two dead horses. Hundreds of corpses, completely naked, were scattered around him. The tram shelter was burnt out, but the most extraordinary thing was the way the people were lying naked all round it. Next to the tram shelter was a public lavatory of corrugated iron. At the entrance to this was a woman, about thirty two years old, completely nude, lying face down on a fur coat; not far away lay her identity card, which showed her to be from Berlin. A few yards further on lay two young boys aged about eight and ten clinging tightly to each other. Their faces were buried in the ground. They too were stark naked. Their legs were stiff and twisted into the air. In a Litfass pillar [a cylindrical advertising column] which had been bowled over were two more corpses, also naked. There were about twenty or thirty of us who saw this scene; we felt weak and dazed and we could not help weeping. As far as we could make out the people had stayed in their basements too long. When they were finally driven out, the enormous heat outside took them by surprise and they must have died of lack of oxygen.'[11] (In this case it is unlikely that carbon-monoxide poisoning was the cause of death: rigor mortis would not have set in as described.)

Some areas of Dresden had been so severely hit that it was unlikely that any people had escaped with their lives. One of these areas was around Seidnitzer Platz. In this square there was also a static water tank, some fifty feet square, converted from a

children's playground. This tank was not as deep as the ones in the Altmarkt; many people had either stood in the tank or had sat around the rim, waiting for the raids to end. One or two hundred of them were still sitting there, just where they had been on the night of the raid. There was a gap here and there where somebody had rolled forward into the tank. But all, again, were dead. Once again, the lack of oxygen which characterized the fire-storm had claimed the victims.

On the corner of Seidnitzer Strasse and this square there had been a local hostel for RAD labour girls, and next to it a temporary hospital for legless soldiers. At the time when the Full Alarm had sounded on February 13 the girls and the soldiers had been watching a carnival performance of a puppet show in the hospital basement. In the hospital where the surviving RAD girls carried out rescue operations later they found that between forty and fifty of the patients and two doctors had succumbed to the fires; only two doctors and one nurse had escaped. 'I had never realized that corpses would shrivel up so small in the intense heat,' said the leader of the RAD unit who had herself already survived the earlier fire-storm in Darmstadt. 'I had seen nothing like it before, even in Darmstadt.'[12]

The restaurant and ornamental palaces in the Grosser Garten had also without exception been converted to military hospitals. All were damaged to some degree. Along the southern edge of the Grosser Garten ran the rambling zoological garden, which had housed one of the most famous menageries in central Germany. The bombs that had struck the zoo had already released a considerable number of the animals from shattered cages. During the second raid a giraffe was seen walking awkwardly about the park looking for shelter, and tiny rhesus monkeys were springing from branch to branch of the partly burning trees.[13] (In Hamburg the famous Hagenbeck zoo had been specially reinforced to prevent air raid escapes by wild animals. Cages had been double barred and the zoo premises encircles by trenches and traps.) Here in Dresden, most of the cages were shattered beyond repair; to prevent a mass escape army officers were called in to shoot all the animals remaining early in the morning after the raids.[14]

With the task of opening up streets and houses still incomplete, the day for the recovery of victims from the public parks was still distant. Even ten days after the

raids the victims had still not been removed from the green lawns of the Grosser Garten. A Swiss resident described how two weeks after the raids he set out across the devastated city to visit a friend in Gruna. His journey took him along the broad boulevard of Stubel Allee, where the gauleiter of Saxony, Martin Mutschmann, had his villa. It was heavy going, not only because of the craters and the rubble, but also because of the sickening sight of heaps of air raid victims stacked up everywhere. 'The sight was so appalling that without a second glance I decided not to pick my way among these corpses. For this reason I turned back and headed for the Grosser Garten. But here it was even more appalling: walking through the grounds I could see torn-off arms and legs, mutilated torsos, and heads which had been wrenched off their bodies and had rolled away. In places the corpses were still lying so densely that I had to push them aside in other not to tread on arms and legs. The palace in the Grosser Garten, one of the city's finest baroque buildings, was of course burnt down.'

The disturbing account of the aftermath of the raids from which this excerpt is taken was published for three days in a leading Swiss newspaper from March 22, 1945 after its author had smuggled the notes out of Germany.[15] It shocked not only the Swiss. Less than six days later the British Foreign Office made representations to the prime minister, Mr Churchill, about the effect that bombing operations on this scale were having on world opinion.

For the RAD, the labour service, the Dresden raids were especially tragic. Girls were required to work for one year in this organisation, and six more months (by Führer decree of July 1941) in the Auxiliary War Service (Kriegshilfsdienst or KHD), working in the post office, bus and tram services, or hospitals.[16] The male RAD units came under Arbeitsgau XV, Dresden; but the RAD's District VII, Dresden, directed all female labour (RAD w.J.) units in Saxony, and this had received many requests from parents to let their daughters serve their final six months KHD in what was taken to be the comparative safety of Dresden rather than in the more endangered areas of central and western Germany. The casualties among this section of the German labour front were correspondingly far heavier. As one of the female unit leaders (*Maidenführerin*) estimates, during the triple blow on Dresden about 850 Kriegshilfsdienst girls had been killed.[17] Their bodies were laid out in rows in König-

Johann Strasse for relatives and neighbours to identify. One group was of a dozen KHD tram-conductresses, young girls in uniform; to one of them a card had been pinned, reading PLEASE LET ME HAVE THE BODY. I WISH TO BURY MY DAUGHTER MYSELF.[18] Already word was spreading among the survivors about the crude mass burials of the air raid victims outside the city.

When it came to salvage duties, it must be said that the RAD and KHD girls proved as tough as the hardiest of the Ukrainian soldiers and forced labourers put to this unappetising task. They did not flinch from entering the basements, even in the middle of the night – during the early days the rescue work continued around the clock – and hauling the bodies out onto the sidewalks. All the victims were searched for personal papers which could throw light on their identity. If the identity could be established beyond doubt, it was written onto a yellow serial-numbered card which was fastened with a skewer to the corpse. In addition to this, the girls were required to open up the clothing of the unidentified victims and cut samples from the blouses and undergarments, parts of which were pinned to the bodies, the remainder being inserted in the envelopes of personal effects. Unidentified bodies were serial-numbered with red cards to avoid confusion.

For the RAD girls the most heart rending task was that of processing their own colleagues. In the big hostel in Weisse Gasse, for example – a narrow street hard by the Altmarkt – the basement was crowded with ninety girls, all of whom had died. 'The girls sat there as though stopped in the middle of a conversation,' described the leader of the squad which first reached the hostel basement. 'They looked so natural, even though they were dead, that it was hard to believe that they were not indeed alive.' (The communist German version puts a subtly different accent on this episode. 'In the Weisse Gasse many girls enrolled as tram-conductresses had been killed. As the cellar was not safe, the girls had begged to be allowed to go home or to safer basements. The leader of the hostel was a fanatical Nazi, and he forced them to stay in the cellar for disciplinary reasons, and all of them were killed be high explosive bombs that penetrated. The mutilated and shattered corpses of these girls were beyond identification.') 'They were all carried upstairs,' continued the squad-leader's description, 'and loaded onto wagons. That was about three days after the raids. As

one of the girls was being loaded onto a truck, a decontamination official noticed a slight movement. She was taken to the hospital, where eight days later she recovered consciousness. It was only eight days after that that she regained her memory.'

Many people must in fact have been buried alive. A man who was knocked unconscious by a near miss when he was sheltering near the Grosser Garten came to his senses only as he was being carried on a wagon, under a layer of several corpses.[19]

'For the first three days,' wrote one of the soldiers brought into the city from the Neustadt barracks, 'we just looked for survivors.' He had fought on many battlefields in this war, but he had seen nothing before like what he now saw searching through the basements between the Altmarkt and the Post Office square. 'My unit found only about twenty people still alive and we took them down to the ships on the Elbe. We noticed that all those we were able to save had been lying flat, while those who were sitting and standing were all asphyxiated.' In the few days that followed, his unit recovered over one thousand corpses just from the cellars in the little area between the Altmarkt and the Post Office square (mainly from Waisenhaus Strasse.) 'How many dead we got out in the three weeks I was doing this, I can't estimate,' he would write. 'And there were many, many such units from the Wehrmacht and other organisations.'[20]

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The Allied prisoners too entered into rescue operations with enthusiasm, developing their own primitive listening gear, driving gas pipes into the cellars to listen for sounds of life and to provide air supplies for any survivors. Their working day was between twelve and fourteen hours, the same as the German labourers. In several cases however there were scenes of violence as the population vented its bitterness on the helpless prisoners. They did not object to Germans being rescued alive by Allied prisoners, but somehow it irked them to see their enemies handling their dead. To the prisoners it was much the same whether they were recovering victims alive or dead. It was in fact easier to salvage the dead ones, because they needed handling less carefully. One British soldier, a veteran of the battle at Arnhem, was clearing the entrance to a cellar when he saw a projecting arm. He thoughtlessly gave

it a tug and it come off in his hands. From seemingly nowhere a group of angry Germans appeared and beat him up.

Some ten days after the triple blow Hanns Voigt, directing the VNZ dead persons' section, was summoned by the squad leader of one SHD unit to a building near Pirnaischer Platz: a group of Romanian soldiers was refusing to go down into one of the basements. They had freed the steps leading to it, but clearly something out of the ordinary had happened inside. The workers clustered sullenly around the basement entrance as Voigt, wishing to set an example, marched down the steps to the cellar, an acetylene lamp in his hand. He was reassured by the lack of the usual smell of putrescence. The bottom steps were however slippery. He took a pole and stirred the darkness of the cellar entrance. The cellar floor, he found, was covered by a thick liquid mishmash of blood, flesh and bone. A small high explosive bomb had penetrated four floors of the building and exploded here in the basement. Voigt instructed the SHD officer not to attempt to recover any of the victims, but to spread chlorinated lime over the inside of the basement and leave it to dry out. An interview with the *Hausmeister* (superintendant) of the building yielded the information that there would have been two to three hundred people down there on the night, there had always been that many during previous air raid alerts.[21]

In Seidnitzer Strasse equally gruesome scenes presented themselves to the recovery teams. Even hardened old battle veterans could not take the strain for long. Two men working on the recovery of bodies from the basements here refused to carry on. They were ordered by their squad leaders to return to work, but again declined to comply. Both were executed on the spot by a Party official. The bodies were loaded onto the same horse drawn wagons as the putrefying bodies of the air raid victims.[22]

Large mounds of corpses on the streets marked the numerous cinemas and hostelries in the city where the people had collected in their hundreds on the carnival evening of the attack. At the time of the beginning of the first air raid the movie theatres and playhouses had still had another hour to run; many thousands had been trapped in them as the first bombs fell. In the basement of the Augustinus Keller, a tavern in the Waisenhaus Strasse, some six hundred victims were found. 'The whole street was piled high with rubble up to the next storey,' wrote one of the soldiers

engaged in recovery the bodies. 'Entry to the cellars was possible only from the other side fronting onto the Altmarkt.'[23] In the Rothe Bar not far from the Town Hall a further sixty were found, and in the Johanneshof forty-four more victims.[24]

The first thing that Voigt saw at the central railroad station was mounds of corpses being stacked on the railway tracks in slabs some ten to twenty yards square and ten feet high. The bodies of the soldiers who had been passing through the city or on leave at the time were still being hauled out of the ruins and loaded onto wagons standing on the squares outside, with all their heads pointing one way and their feet the other. On the day he made his inspection the authorities released their first estimate of the number of victims at this station – between seven and ten thousand dead.

The survivors used every spare moment in the search for relatives. 'I had some good friends living in Moritz Strasse,' wrote one man later. 'I wanted to know what had happened to them. When I reached the house however there was a half-full horse-drawn cart standing in front of it. The victims were being carried out of the cellars on stretchers. Our friends too were among them, their bodies almost completely decayed but their clothes still recognizable. The smell made me feel ill, but I held on. The men hoisted up the stretchers and tipped the bodies onto the cart. Slurp! – That was the sound made by the bodies of my friends as they slithered on top of the others. That was their farewell. Can you imagine what that meant for me?'

It was one thing for a man to be the unwilling witness of the disposal of the remains of his friends. For those who were detailed to undertake the recovery of the tens of thousands of victims, to search them, to docket and identify them, and finally to remove and bury them, the work began as a duty, but became a living nightmare.

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The further the salvage operations were pressed into the centre of the city the more hopeless seemed the ideal of total registration of all victims. Finally the salvage squads were restricted by the sheer size of the task to removing wedding rings and obtaining cloth-samples of all the garments worn by each victim. As the danger of typhus epidemics grew, the previous system of leaving each victim out for inspection was dispensed with. The victims were removed immediately after being dug out. In

Dresden's Leuben suburb Hanns Voigt had within a few weeks perfected an indexing system simple enough to be operated easily by his limited staff, yet comprehensive enough to afford every inquirer a positive chance of learning the fate of relatives

On April 19 the mayor of Dresden announced that as his Central Bureau of Missing Persons was now the most comprehensive source of data about victims, casualties, and survivors the inquiry of5ce formerly operated by the criminal police in the ministry of the interior building would be closed down. the police unit's data and collection of salvaged property together with the personal effects should pouring from the recovery-gangs, would be redirected to the Central Bureau, and thence to the dead persons' section run by Hanns Voigt.

He had set up four filing systems, each housing different data.

The first contained several thousand 'garment-cards', onto which were pasted inch-square samples of all the clothing found on unidentified bodies together with details of the location, date of finding, place of burial and the universal serial number; the garment cards were filed according to the streets and house numbers, and kept available for searchers in filing cabinets in a hut erected at the end of the office's garden (because of the smell of decay still clinging to them). Using these cards it was possible to clear up well over one thousand missing persons' cases, related Voigt years later. 'By the time of the capitulation we had almost twelve thousands of these cards completed,' he stated.

The second indexing system provided filing cards, again organised street by street, on which were indexed the miscellaneous personal effects of unidentified victims found in or outside buildings. With the aid of these cards friend and acquaintances were again often able to identify the victims.

The third index considered of a simple alphabetical register of bodies definitely identified by identity cards or other personal papers found on them. This list, said Voigt, was one of the shortest and was finally closed on April 29, 1945.

The four list was the most poignant, a list of wedding or engagement rings recovered from the bodies. They had been cut from the lifeless fingers to provide further identification – German custom required the initials of the wearer to be engraved inside each ring. It should not be thought that all these rings belong to women, of

course; German custom was for men to wear wedding rings as well. By May 6, related Voigt, he had collected between ten and twenty thousand of these gold rings, stored in two gallon buckets in the ministry of the interior building on Königsufer.

Voigt's recollection was that using these four indexing systems his section was able to establish the identity of some forty thousand of the dead. Another figure, not too widely different, was provided to this author by the city's civil defence engineer, who wrote: 'The official number of identified dead was announced as 39,773 up to the morning of May 6, 1945.'[25]

These figures may be taken as the absolute minimum death roll in Dresden. Both are some five thousand more than the total death roll consistently claimed by the Soviet Zone publications about Dresden in post war years, a curious feature about which more will be said later.

Voigt's work was never completed. As the result of premature intervention by officials from Berlin, the identification work was several times halted and even dispensed with. Early in March 1945 an S.S. Kommando arrived from Berlin, presented itself at the VNZ office, announced that the identification work being conducted by Voigt's section was holding up the burial procedures and increasing the danger of epidemics; they demanded that the identification work be partially transferred to the burial sites themselves. This was a less satisfactory arrangement, because at these cemeteries the authority passed out of the hands of the VNZ officials into the hands of others.

History relates that the last mortal remains of 28,746 of the air raids' victims found their last resting place on the Heidefriedhof cemetery outside the city, where the principal monument to them, a simple, ugly stone slab, stands to this day. The figure reflects literally only the number of heads counted by the salvage teams. The chief gravedigger of this cemetery would later point out however: 'The mutilated and charred corpses whose heads had been burnt off or crushed could be no more be included in the count than those who had been incinerated alive in the fire-storm, and of whom nothing remained but a scattered pile of ashes.'[26] In fact the few victims of the little American air raid of January 16 were still being buried at this cemetery – these having at least the dignity of coffins to lie in – when the February triple blow

struck the city. These earlier casualties were now forgotten in the flood of new victims that engulfed the burial grounds. The gravediggers, for the most part airmen summoned from the radar training and flying school at Dresden Klotzsche airfield, were instructed to bury the victims without coffins or shrouds. Mass graves were rapidly excavated by bulldozers. The first victims to arrive were granted a space of ninety centimeters each, about three feet. But as the endless columns of trucks and wagons rolled through the cemetery gates it soon became obvious that this was too generous. Since all but one of the city's fifteen hearses had been destroyed in the raids the farmers and peasants from surrounding villages were ordered to bring their teams of horses into Dresden for the task. At the same time a stream of individuals arrived, wheeling their own dead up to the cemetery in the hope of giving them some kind of decent burial. The trickle grew to a flood, and swelled to a torrent: the bodies came by coal truck and by tram; nobody was offended if the dead arrived wrapped in old newspapers or brown paper tied in string (the RAD female units were supplied with the paper-bag stocks of a cement factory to pack the remains into.)

The recovery squads had been affixing yellow cards to the identifiable bodies, and red cards to all the others. The cemetery had been divided into four plots. The identified victims were laid to rest in the mass graves dug out in plots A and B, and the rest were buried in plots C and D. As the risk of typhus grew, so did the impatience of the S.S. and police officials with the lengthy identification procedures. They had brought columns of police trucks from Berlin to assist in carrying the casualties up to the burial sites. Police officers now ordered a whole lorry load of corpses tipped straight into a mass grave, leaving the burial troops to sort out the tangled mass of corpses and limbs in order to restore at least some kind of order to this wild necropolis. It became obvious that the three foot allowance for each corpse was too generous, and soon the bodies were being packed shoulder to shoulder in the mass graves. With the arrival of the police authorities from Berlin the orders were amended again so that the corpses were now buried three layers deep. The Heidefriedhof, several square miles in area, would have offered ample space for a proper burial of all the victims;

but the warmer weather was approaching and a smell of decay settled across the city that warned the officials that it as time to think of the safety of the living.

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The army erected barricades around the centre of the old city, the area thus cordoned off being a square bounded by streets about three blocks to either side of the Altmarkt. At first nobody even guessed what the restricted zone was for. Then the body recovery squads received a change of orders: the bodies were no longer to be taken to the burial sites outside the city, but sent to a central collecting area in the Altmarkt. Burial in the Heidefriedhof entailed long columns of corpse-laden wagons trekking through the still heavily populated areas of Dresden Neustadt which had received hardly a single bomb during the raids. The authorities did not wish the population here to have to witness this demoralising spectacle.

Nothign was yet said about how else the tens of thousands of corpses being recovered from the ruins each week could be disposed of. Identification of the victims was becoming chaotic. Mounds of unidentified corpses were accumulating at the some of the cemeteries. At some cemeteries officials were able to achieve near-miracles – at the Johannis cemetery in Dresden Tolkewitz for example the police unit leader was able to complete identification procedures with nearly all the victims. But at other sites the rapid accumulation of unidentified corpses gave rise to worrisome complications. S.S. officials who returned to the Heidefriedhof and saw a mound of three thousand unburied victims ordered their summary burial without further attempts at identification. The bodies were merely bulldozed into the prepared grave.

The early March weeks were chilly, but in the middle of the month the weather changed and an inordinately warm spring sun beat down on the dead inner city. The ruined buildings dried out, but hundreds of the crushed and blocked basements had still not been opened even weeks later. Unusually large rats were seen scurrying about amongst the ruins, their coats streaked with the white lime that had been spread inside the wrecked buildings. Soldiers working late at night in the cordoned off Dead Zone reported seeing rhesus monkeys, horses, and even a lion hiding in the

shadows where they had been living and feeding since their circus cages had been destroyed two months before.

The Altmarkt Square however was already seeing more fearsome scenes than once-caged animals prowling in the darkness.

[1] Wilfried von Oven, *Mit Goebbels bis zum Ende* (Buenos Aires), vol.ii.

[2] James F Byrnes' shorthand note of Plenary Session at Yalta, Feb 7, 1945 (H S Truman Libr., Independence, Missouri).

[3] *Völkischer Beobachter*, Feb 1945, passim.

[4] Karl Bodenschatz, conversation overheard in CSDIC(UK) Report SRGG.1222 (PRO file WO.208/…); and the same figure is given by Bodenschatz in conversation with Kurt Bassenge, May 28–31, 1945 (PRO file WO.208/4178).

[5] Private conversation between lieutenant generals Kurt Dittmar and [NAME] Holste, Jun 7–13, 1945, reported in CSDIC(UK) report GRGG.314 (PRO file WO.208/4178).

[6] Colonel Edgar Petersen, Jul 23, 1945: quoted in Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iii, 224. These officials historians could equally have quoted Bodenschatz or the two generals quoted above, but they chose not to.

[7] Diary of Prof Theo Morell, Feb 15, 1945; transcribed and edited by David Irving.

[8] Remarks of Major-General Hans Bruhn, CSDIC(UK) report, GRGG.261, Feb 16, 1945 (PRO file WO.208/4177).

[9] General Hans Rumpf in his memoirs, *Der hochrote Hahn* (Darmstadt, 1952), 135.

[10] Hanns Voigt and several others.

[11] Hans Schmall to the author, Jul 21, 1961.

[12] Margarete Führmeister, interview with the author on Jun 19, 1962.

[13] Magdalene Ludewig, of Pfäffikon, Zürich, to the author; and Eva Antons to the author, May 29, 1961.

[14] Georg Feydt, loc. cit; and Hanns Schmall to the author, Jul 21, 1961.

[15] Wilhelm Sander, in *Züricher Stadt Anzeiger*, Mar 22, 1945.

[16] Oberfeldmeister Dr phil Wolfgang Scheibe, *Aufgabe und Aufbau des Reichsarbeitsdiensstes* (Leipzig, 1942).

[17] Margarete Führmeister, interview with the author, Jun 1962.

[18] Author's interview with Rademann, Apr 26, 1961.

[19] Richard Pierau to the author, Jun 24, 1961.

[20] Hermann Völker, Donzdorf (Württ.), letter in *Frankfurter Allgemeine Zeitung*, Mar 16, 1977.

[21] Hans Voigt to the author, Jun 5, 1961 and interview of Jun 21, 1962.

[22] Margarete Führmeister, interview with the author, Jun 19, 1962.

[23] Hermann Völker, loc. cit. He speaks of 300 dead found in the 'Waisenhauskeller.'

[24] Seydewitz, loc. cit.

[25] Georg Feydt, loc. cit.

[26] Obergärtner Zeppenfeld, quoted by Seydewitz.

They Shall Reap the Whirlwind

In case the impression has grown that out of the chaos of the triple blow and the tragedy of a hundred thousand families a measure of peace, order, and discipline had returned to the ruined Saxon capital it should be made clear that within barely two months the arrival of warmer weather had thrown the salvage work and identification procedures into confusion. A new urgency hastened the steps of the salvage gangs: the real danger of a typhus epidemic.

People searched for many days for missing relatives so that they could be spared the indignity of mass burial in a common grave. But while they departed to search for wheel barrows or carts to remove the bodies to a cemetery to bury them themselves, all too often the tidy-minded SHD squads had already dragged the bodies away and they were already lying stacked onto a jolting cart under a pile of thirty other decaying bodies making its way in procession along the Grossenhainer Strasse to the pine forests north of the city. Who was right? The relatives who wanted a decent burial, or the authorities whose duty it was to avoid epidemics and try to speed up the identification work at the cemeteries? Many of those who saw the endless caravans of horse-drawn carts and trucks trundling northwards out of the city must have silently vowed that they would never let their relatives be carried to their last resting place like that.

'On Markgraf-Heinrich Strasse three men spoke to me,' recalled an evacuee from Cologne who was in the city. 'They were carrying between them a black overcoat on which lay a body. One of them asked me what kind of building that used to be? I told them it used to be a school but it was converted to a military hospital before the raids. All; he could say then was, "I have to bury my wife. I might as well do it here.

Later on I saw them hollowing out a shallow grave. There weren't any coffins, and the man seemed to be a stranger to the city."'[1]

Some people would not realise, complained the harassed Hanns Voigt, director of the dead persons' section of the VNZ , that they did not have a personal right to the bodies of their next of kin. In some cases the relatives dug up the corpses from the mass graves, and took them away to family tombs. Thus the statistical position was confused still further.

One man provides another instance of the prevailing desire not to let the recovery squads get hold of the remains of next of kin. 'In order to spare her parents a mass-burial my sister-in-law first of all took her father out of the city on a wheelbarrow to bury him and then returned for her mother. But in the meantime a recovery gang had taken her away. Thus most of the people who died were spirited away and their death certificates read, like that of her two parents, DECEASED IN DRESDEN FEBRUARY 13, 1945.'[2]

Some parents cracked under the strain of looking for lost children or husbands. One mother had lost her whole family on this one night, and spent weeks outside her ruined house asking passers-by if they had seen any trace of her two young children or her husband: the eight year old boy, she said, had been wearing a cowboy suit and the girl was dressed as an Indian squaw; both were on their way home from a carnival party.

Such was the effect of the triple blow on Dresden in terms of human suffering. Analysed in statistical detail it was no less impressive. In so far as the attacks on Dresden had been designed to destroy the residential areas of the city and to make it impossible for the German army to billet soldiers in the town, the raids might indeed be described as a shattering success. One secret British assessment concluded that the raids had seriously damaged twenty-three percent of the city's industrial buildings and heavily damaged fifty-six percent of the non-industrial buildings; this assessment described 78,000 of the city's dwelling units as demolished, 27,700 as temporarily uninhabitable, with 64,500 more suffering minor damage.[3] Sir Arthur Harris, writing in his memoirs, would later suggest that 'the area of devastation – 1,600 acres – was considerably less than that in Hamburg.' The British Bombing

Survey Unit, basing its figures on aerial photography, estimated that 1,681 acres of the 'built-up (target) area' had been destroyed.

In November 1949 however the Dresden city planning office completed its own detailed survey of the damage and listed 3,140 acres as more than seventy-five percent destroyed; a further 1,040 acres outside this central area were more than twenty-five percent destroyed.[4] Of the 35,470 residential buildings in the Dresden area, it found only 7,421 undamaged. Expressed in terms of homes and apartments, of the 220,000 living units, over ninety thousand were destroyed or rendered totally uninhabitable by the attacks. Expressed in terms of area, 51,150,000 square feet of living space were completely destroyed, and 48,850,000 square feet had been moderately damaged. Expressed in the dry terms in which German air raid statisticians excelled, while by comparison in Munich there were 8·5 cubic yards of rubble per citizen, in Stuttgart there were 11·1 cubic yards, in Berlin 16·5 and in Cologne 41, in Dresden, for each of the citizens including those killed in the raids, there were fifty-six cubic yards of rubble – more than eleven truckloads of rubble per inhabitant.[5]

The police chief's report on the damage gave more substance to these figures. By early March Colonel Thierig had listed 11,916 residential buildings (not 'homes') as totally destroyed, with a similar total of buildings heavily, less seriously, and slightly damaged.)[6] The raids had totally destroyed twenty-four banks and twenty-six insurance companies (including every one in the city centre), thirty-one department stores, 647 shops, sixty-four warehouses, two market halls, thirty-one major hotels including the famous Hotel Bellevue, and twenty-six hostelries. The Kristall-Eisfabrik und Kühlspeicher in Magdeburger Strasse, the biggest cool-store in the Reich, was seriously damaged. The municipal slaughterhouse – the Slaughterhouse Five of which Kurt Vonnegut would so movingly write – was badly damaged.

Further wrecked were sixty-two headquarters buildings including those of the Nazi Party's gauleiter (of Saxony) and Kreisleiter (of Dresden), the finance ministry of Saxony, the provincial court and court of appeal, the old technical university, and the Labour Front building; serious damage had been inflicted on the Saxon ministry of the interior, the city hall and museum, the police headquarters, the prison, and the new technical university. Besides Gottfried Semper's famous Opera, three the-

atres had gone up in flames – the Central Theatre, the Comedy House, and the Theatre of the People; the State Theatre and the world famous Circus Sarassani were badly damaged. Sixteen movie theatres, eleven churches, six chapels, nineteen hospitals and clinics, six consulates (Finland, Spain, Sweden, Italy, Denmark, Hungary), and one zoo and thirty-nine schools had been destroyed (with thirty-three more schools badly damaged).

Irreplaceable architectural monuments had also been ruined including three palaces, the old city hall, the Zwinger (also designed by designed by Gottfried Semper), the new Art Gallery, four museums, and the former Residence Church; the world famous Green Vaults art gallery, architectural gems by Schinkel, and the Albertinum with its priceless collection of sculptures and the art academy of arts had also perished in the flames.[7]

The damage to the city's infrastructure appeared insurmountable. Five hundred kilometres of sewers and canals had been destroyed, 1,750 bomb craters remained to be filled, and ninety-two kilometres of tram wires had been torn down; 185 streetcars and trailers had been completely wrecked, 303 more damaged in varying degree. (This latter statistic is perhaps illuminating. The tram cars could be considered to have been evenly distributed across the city at the time of the attack; yet while in the whole week-long Battle of Hamburg in 1943 six hundred tram cars had been damaged, in Dresden 488 had been damaged in a single night.)

Less serious was the damage to the industrial section of the city. Here recovery was swift, according to the post war interrogation of the German armaments minister Albert Speer.

The damage might at first have appeared mortal: of the twelve vital services and power installations in the city only one had not been damaged; in fact the permanent damage to power, gas, and water plants was found (according to the final police report) to be slight, with total destruction only to the water pumping station in the Grosser Garten, and serious damage only to one power station and two gasholders. There was more than enough to supply the surviving population were it not for the devastation of the underground gas, water, and power distribution networks.[8]

By February 15 most of Dresden Neustadt was supplied with power again, and as the swift resumption of the outlying tram services indicates most of the suburbs were with electricity again within one week of the raids. The centre of the tramway network had been punched out by the raids, with 73 percent of the overhead lines down and nearly two hundred streetcars smashed where they halted as the sirens sounded.[9]

By February 19 however electric tram services had been resumed between the Industrial Estate, Weixdorf, and Hellerau; between Weissig and the Mordgrundbrücke bridge, soon to be extended into the devastated city itself; between Mickten and Coswig; between Cossebaude and Cotta; and between Niedersedlitz and Kreischka. On the Elbe stray bombs had sunk two steamships, one motor launch, five barges, two houseboats, two dredgers and various other craft. To compensate for the total destruction of the tram service across the inner city, an improvised shuttle service of Elbe river-steamers was operated between Pieschen and Laubegast, between Blasewitz and the old city, and between Dresden and Bad Schandau and Pirna; these services were timed to connect with local tram services in the suburbs.

The industrial areas had been scarcely damaged in comparison with the rest of the city, and of the major industrial plants in Dresden only the Zeiss-Ikon optical works in Striesen was seriously damaged, according to the final police report, and could not anticipate a date for production to resume; the works, in the area bounded by Schandauer Strasse, Kipsdorfer Strasse, and Glashütter Strasse was just under three miles east of the city centre, and on the fringe of the area of total devastation; it is believed that Zeiss-Ikon was not able to resume production before May 1945.

Of the other industrial installations none was totally destroyed, 136 were badly damaged, twenty-eight less seriously damaged, and thirty-five slightly damaged. Typical of the first category was the Saxon Serum Works, which had been knocked out of production for the time being, others, reported the police chief, were expected to resume fifty to one hundred percent operations within three to six weeks.[10]

The two Sachsenwerk plants manufacturing electronic components in Dresden-Niedersedlitz (five miles south-east of the city centre) and Radeberg (nine miles to the north-east) had not been hit by explosive bombs; the Niedersedlitz plant was hit

by a few stray incendiaries which were tackled by the works' fire-watchers, and suffered only glass damage. On the morning after the triple blow, few of the staff of this plant reported for work, and there was at first no electric power or gas supply. The employees of the Sachsenwerk plants however suffered surprisingly few casualties: although all records relating to the plant were destroyed before the end of the war, senior staff have reported that certainly fewer than three hundred of the five thousand employees failed to arrive for work within a week and were assumed to have been killed; of the eighty employees in the machine tool department, for example, all without exception reported for work within that time.

The explanation of this apparently remarkable resilience is in fact simple. On the one hand, few of the Niedersedlitz plant's workers lived in the town area, the majority having been recruited from over eighty surrounding villages; on the other hand, the areas of total devastation in Dresden embraced the middle-class suburbs, but left the working-class areas of Neustadt, Striesen, Löbtau, Friedrichstadt, Mickten, and Pieschen more or less undamaged.

Similarly, the Zeiss-Ikon Goehlewerk fuse-factory in Grossenhainer Strasse, Dresden Neustadt, probably the only factory built in Dresden with the possibility of an air raid in mind, was undamaged, as was the Industrial Estate on the site of the former Arsenal in Dresden Neustadt. All of these plants and factories suffered of course from the immediate indirect effects of an air raid: loss of power supplies, demoralisation and depletion of labour forces, and shortage of transport. But in no case except that of the Striesen Zeiss-Ikon works was the physical damage to plant overwhelming.

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How many had died in the Dresden fire-storm? In view of the controversy surrounding the total, it is worth quoting here the relevant paragraph of the "final report' signed by Colonel Wolfgang Thierig, chief of staff to Dresden's police chief, on March 15, 1945:

CASUALTIES: as of early March 10, 1945: 18,375 dead, 2,212 seriously injured, 13,718 lightly injured; 350,000 people homeless and long-term evacuees.

Not yet possible to break down the casualties by sex in view of the on-going difficulties (departure of large sections of the population, transfer of a large part of the injured to outside, complete carbonisation or putrefaction of the corpses). By far the larger number are however women and children.

According to the criminal police it will prove possible in time to identify about half the victims. From what has been seen so far the majority of the dead in or outside the air raid rooms died directly or indirectly by the effect of fire or being buried alive.

The police report noted that the second night raid had resulted in heavy casualties in the open streets and parks. 'On the basis of previous experience and determinations made during salvage operations the overall total of dead including foreigners is now put at around 25,000. There are still probably many thousands under the masses of rubble particularly in the city centre, and these cannot be recovered at all at present. Precise determinations of the death toll will be possible only when the Missing Persons and Registration bureaux of the police authority have established which people had left Dresden. There are currently about 35,000 listed as missing with the Missing Persons bureau and the city authority.'

There were only about one hundred dead from the armed forces counted so far; the figure was low in consequence of orders placing the city off limits.[11]

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At about the time that Thierig signed this report, a month after the air raids, the order was given that all mass burials were to cease. Dresden's newspaper carried a special decree signed by the police president as district civil defence director: 'Special circumstances constrain me to point out that entering areas outside the paths already reopened to the public is strictly forbidden. Anybody encountered elsewhere who cannot satisfactorily explain his purpose and establish his identity will be regarded as a looter and treated accordingly, even if nothing suspicious is found on his

person.' Army, police, and Volkssturm patrols had been issued with these instructions, the notice continued; people who wished to go digging for their own property were earnestly warned to report first to the appropriate police station for a guide.

Several weeks earlier the police authorities had already decided to adopt a measure more dreadful than had been employed at any other stage of the British area bombing offensive. The remaining victims, and there were still thousands being dug out each day, would no longer be carried to the pine forests and mass burial sites any longer. The danger of spreading epidemics by these long caravans of decaying bodies loaded onto carts was too great.

The whole of the city centre around the Altmarkt had already been cordoned off. relatives who stumbled across the still-impassable streets of the inner city were waved away by police and Party officials. Wagon loads of corpses were now being driven to the frontiers of this cordoned area by SHD and forced labourers, and there handed over to army drivers and officers. The wagons were driven on to the centre of the Altmarkt, and there their terrible loads were tipped onto the cobbled paving.

Scores of police officials were at work here, making last efforts to identify the people, and sworn to secrecy about what was happening. The Steel girders had been winched out of the ruins of the Renner department store on the Altmarkt and these had been laid across crudely collected piles of sandstone blocks. A gigantic grill over twenty-feet long was being erected. Under the steel girders and bars were poked bundles of wood and straw. On top of the grill were heaped the corpses, four or five hundred at a time, with more straw between each layer. The soldiers trampled up and down on top of this rotting heap, straightening the victims, trying to make room for more, and carefully building the stack. Many of the dead children sandwiched into these terrible pyres were still wearing the colourful carnival clothes that they had donned so eagerly two weeks before.

Finally gallons of gasoline, sorely needed though it was throughout the whole Reich, were poured over the stacks of victims. A senior of[5]cer cleared the Altmarkt square of all unnecessary by-standers, and set a match to the heap. Once again thick black smoke coiled up from the centre of the Dresden Altmarkt – as it had two weeks before, and as it had indeed in 1349: history records how almost six hundred years

earlier the Margrave of Meissen, Frederick II, had had his enemies burned at the stake here in the Altmarkt; they were the Jews, accused of introducing the Plague. By a cruel coincidence the burning had also fallen on Shrove Tuesday carnival day.

In the late hours of the evening the grill was re-erected over a different part of the square. Nazi Party of5cials saw to it that the ashes and charred bones were collected and taken to the cemeteries to be buried too.

In spite of their attempts to keep secret the fate of the victims who had been swallowed up by the ruined emptiness of the inner city, the story did leak out. Some citizens, probably risking their lives, made their way to the Altmarkt to check on the rumours. One man, Walter Hahn, a veteran photographer who had spent his life capturing this 'Florence of the Elbe' and the surrounding countryside on film, obtained an of5cial pass signed by the gauleiter on February 25, and took a score of photographs of the infernal scene in black and white and colour – photographs which helped belay the allegations that the 'mass funeral pyres' were a product of Dr Goebbels' propaganda.[12]

It took several small horse drawn carts and ten large trucks with trailers to carry the ashes to the Heidefriedhof cemetery. Here the ashes of several thousand of the victims who had thus been publicly cremated were buried in a pit twenty-5ve feet long and sixteen feet wide. In Colonel Thierig's report signed in mid March is this paragraph confirming the numbers cremated by that date:

> Because of the rapid decomposition of the bodies and the exceptional difficulties encountered in recovering them as well as the lack of suitable transport to convey them to the cemeteries, the approval of the Gauleiter [Martin Mutschmann] and the city authority was obtained to cremate altogether 6,865 bodies on the Altmarkt. The ashes of the victims were transported to a cemetery. Ownerless air-raid and travel-baggage and valuables were also salvaged by the local civil defence director.[13]

It was not in fact the first time that the suggestion had been mooted to cremate air raid victims in public squares to speed the salvage operations. The report of the

police president of Hamburg on the 5restorm there also described how 'to prevent epidemics and for reasons of morale it was decided to burn the bodies at the site where they had been found or in the fire-storm area. But after due deliberation it was determined that there was no risk of an epidemic so burial was resumed in common graves.'[14]

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Raids on Berlin, on the Ruhr cities and on other industrial centres – these the German leaders were prepared to accept as necessary and inevitable. But the 'barbarians' who had delivered the attacks on Dresden with such fearsome results encouraged some of the most powerful invective of the Party leaders. Dabbing at his eyes Reichsmarschall Hermann Göring told interrogators, 'It was terrible. The people of Dresden could not believe that you would bomb their city, because they thought that Dresden was too well known as a cultural center.'[15]

Dr Goebbels had seen Hitler for three-quarters of an hour on February 14, the day after the raids, at 7:15 P.M. He had even demanded that Hitler stand Göring before the People's Court for negligence; but Hitler, who still had a soft spot for his air force commander, weakly refused. On February 17 Goebbels then proposed that Germany formally repudiate the Geneva Convention (which Stalin had never signed anyway). Why else should Churchill's and Roosevelt's pilots feel they could murder with impunity? They should start executing Allied prisoners: one for each air raid victim.[16]

At first Hitler endorsed the proposal.[17] Several people claimed the credit for preventing the plan from being implemented. Hitler told Goebbels later that he had allowed Himmler, Keitel, and Bormann to talk him out of it.[18] Goebbels' chief propaganda speaker Hans Fritzsche stated afterwards that Hitler had decided to kill 'forty thousand' Allied prisoners in retaliation for the bombing of Dresden – a clear indication of the kind of death-roll that had been notified to Hitler on a one-for-one basis.[19] But Baron Hans von Steengracht, who gave Ribbentrop the credit for staying Hitler's hand, put the figure higher, stating: 'He prevented Hitler from slaughtering eighty thousand American prisoners of war. After Dresden was bombed Goebbels

went to Hitler and said, "From now on one American must be killed for every German."' Steengracht warned Ribbentrop of this conversation, and Ribbentrop said: 'Over my dead body,' and went straight to see Hitler.[20]

Dr Goebbels, the Reich propaganda minister, was left only with the destruction of Dresden as a propaganda weapon. 'It is the work of lunatics,' he wrote. 'It is the work of one particular lunatic who recognizes that he lacks the ability to build mighty temples, and so is determined to show the world that at least he is an expert in their destruction. How can this wanton hooliganism against the irreplaceable treasures of European civilisation be otherwise explained, except as the inferiority complex of a man who is leader of a nation that has not produced one single famous architect, or one sculptor of supreme power and vision, but only artists who are at best also-rans in the compass of European art? This man can claim the bitter record of having deliberately and spitefully destroyed more treasures in the last few years of this war than his country has been able to produce in its entire history. Not even a thousand years to come will purify him of this guilt. Only when the dust and debris of this war have settled, only when the misery has ebbed away, only when nations can one day *sine ira et studio* draw up a balance sheet on this war, will people be able to perceive in all their clarity the wickedness and perversity of this chapter in an altogether hideous world conflagration, and realise how mean and petty were the minds of those who wrote it.'[21]

The Dresden raids persuaded Goebbels to adopt one radical change in his propaganda tactics. Previously his attitude had been to put a hermetic seal around every blitzed city to prevent the escape of details which might harm public morale. In one widely reported remark he had said that he would 'build a wall around the Ruhr with its blitzed cities if there were no such things as telephones and letters.' (This echoed British government policy in the early 1940s when the prime minister had asked newspaper editors to play down air raid horror stories, while concentrating on the human angle of the heroism of the rescue workers.) However just as the Allies had soon learned the propaganda value of the brutal Luftwaffe raids, so Dr Goebbels too was now beginning to realise the profit to be drawn from the Allied offensive. When Coventry had been bombed the newspapers were permitted to give great promi-

nence to stories of the massacre in the centre of the city; in the same year great publicity had been accord to the (totally untrue) statement of the Dutch government in exile that the Nazi attack on Rotterdam in May 1940 had 'brutally killed thirty thousand civilians.' (The figure was less than nine hundred). The Allied public was rightly incensed at this Nazi Schrecklichkeit and not really satisfied until they learned that the R.A.F. and the U.S. Army air forces were delivering raids on a comparable scale.

Dr Joseph Goebbels' sister-in-law Ello Quandt had, like Hitler's half-sister Angela Hammitsch, spent the night of the Allied raids in the outskirts of Dresden; thus he had first hand reports about the catastrophe. Hitler certainly received a vivid letter from Angela describing the horrors of that night. A few days later *Das Reich*, certainly with Goebbels' consent, published an account which left little to the imagination, and which would have been unthinkable in 1940 or 1941. 'Tens of thousands who lived and worked under the towers of the ancient city have been buried in mass graves without even an attempt at identification having been possible.' Many, the article continued, had died swiftly of suffocation as the fire-storms consumed the oxygen; the city had housed around a million souls that night, including several hundred thousand refugees, blitz victims, and evacuees in addition to the 600,000 inhabitants. After describing the four raids in some detail, *Das Reich* added, 'Those are the four acts of a coolly calculated murder- and destruction plan.' The city centre was totally destroyed, the report stated, with not a single building left standing and not a living soul either, except those looking for the dead and missing.[22]

Later in March Magda Goebbels paid a visit to the city.[23] Here she visited her sister-in-law and bosom friend Ello Quandt at her sanatorium on the Weisser Hirsch. 'The new weapons will be our salvation,' Magda remarked; then she sighed and admitted: 'No, I'm talking nonsense. There's nothing else. Germany's defeat is only a matter of weeks.'[24] A day or two after Magda's return from Dresden, Goebbels set in motion a cleverly designed campaign of whispers calculated to galvanize the German people into a last horrified stand against the Allied invaders. For this purpose he appears – though there is as yet no proof – to have started a rumour wildly exaggerating the death roll in Dresden.

It is first necessary to consider the atmosphere in Berlin at this time. As propaganda minister, it was Dr Goebbels' wont to hold a morning ministerial conference every day at eleven o'clock, at which strategy was discussed. At his conference on March 25, 1945 he was especially bitter about the Reich Press Chief Dr Otto Dietrich, whose censorship of perfectly acceptable atrocity stories against the Allies was beginning to irk him. 'I often think we are dealing with idiots,' he announced to his staff. 'The British have got away with their fairy story about how we cut off children's hands in Belgium in front of the whole world. But we are lumbered with people in responsible positions who are too prudish to release a proven fact for publication, because they think the hair raising stories might lower the world's opinion or *our* veracity.'

'I really am coming round to the view that what we lack in our propaganda system is the Jewish element,' he continued. 'They are able to make an elephant out of every fly. We however go to great pains to make out that the elephants who are trampling down our people in the east and west are harmless little insects. Where is the German Ilya Ehrenburg who will transport the German people into a paroxysm of fanatical nationalism? We haven't got one. We have a "Reich Press Chief." Well, from now on things are going to be different.'

That evening Hitler relieved Otto Dietrich of his post. Dr Goebbels had already begun his propaganda machinations. Years later, a one-page document of unknown provenance surfaced in west and east Germany, purporting to be the typescript copy of an extract from the police chief's report on the Dresden raids. It was dated 'March 23, 1945' and headed 'Order of the Day No 47'.[25] Most likely it had been drafted for certain Berlin officials who could be relied on not to keep their tongues still. Not so far (1995) found in the original, and bearing no authenticating stamps or signatures, this document gave the death roll in Dresden as 202,040. 'In order to combat the wild rumours the following is a brief extract from the final report of the police chief of Dresden on the four raids of February 13, 14, and 15, 1945.' It concluded: 'By the evening of March 20, 1945 202,040 dead, primarily women and children, and been recovered. It is to be assumed that the total will reach 250,000. Only some thirty percent of the dead could be identified. The regular police in Dresden (Schutzpolizei)

had seventy-three dead, and 276 are missing who must mainly be presumed dead. As the removal of the dead could not be effected fast enough, 68,650 dead* were cremated and their ashes interred in a cemetery. As the rumours greatly exceed reality, public use can be made of these figures. The casualties and damage are grave enough.'[26]

This document was not seen until after the war. It would be possible to dismiss it as a crude post-war forgery along the lines of the famous 'Göring's last letter to Mr Churchill', were it not that with the minor exception of the casualties suffered by the Dresden police all of the other data provided in the Grosse document tally exactly with those in Colonel Thierig's secret report dated March 15, 1945, the police chief's report retrieved by the communist authorities in 1965: the times that the raids began and ended, the police estimates of the numbers of H.E. and fire bombs dropped, the precise numbers of banks, hotels, etc., destroyed or damaged. The conclusion is clear: Whoever drafted the Grosse 'Order of the Day' had the original Thierig document in front of him. It was, as stated, an 'extract'. The Thierig document does not appear to show any signs of tampering, and it is moreover corroborated by extracts in finance ministry files in the west German archives.[28]

Who was Colonel Grosse, who signed the 'Order of the Day'? Colonel Gerhard Gustav Hermann Grosse was the small, Junkerish, moustached chief of staff to Dresden's *Befehlshaber der Ordnungspolizei* (commander of regular police); deeply religious and not a member of the S.S., he had turned fifty-three on the morning after the British raids. He had suffered losses of his own already: one son, Reinhold, had been killed on the eastern front in July 1944, another, four year old, son would be killed a few weeks after the Dresden raids when Russian planes strafed his convoy of staff cars as it pulled out of Dresden on the last day of the war. Grosse's elegant, educated wife Eva recalls her husband reporting every day to her on the mounting death roll, the figure mounting by 'some ten thousand a day,' in her recollection twenty years later. Grosse said to her that the final figure would be over a quarter-million – he said this many times and it was later well imprinted on her recollection. It was his duty to draft the overall report; General Karl Mehnert, the city's commandant, was more detached from these things. [29]

Where did the Grosse report come from? It seems most likely that it was developed or adapted as a ploy by the propaganda ministry, although no overt propaganda use of its statistics was made either then or later. The format of a document disseminated 'to quell rumours' conforms closely with propaganda circulars put out after earlier air raid catastrophes – e.g. after the raids on Hamburg in 1943. However even this does not necessarily mean that the figures in Grosse's 'Order of the Day' were deliberately exaggerated: the figure contained in the propaganda ministry's report after the Hamburg raids was 18,400, substantially less than the final official death toll.[30]

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On May 6, 1945 Hanns Voigt of the VNZ's dead persons' section was summoned to the criminal police headquarters in the Saxon ministry of the interior and instructed to take over the stores of valuables and the buckets of wedding rings. The high-ranking Nazi officials in the city were apparently covering their tracks and heading west. Seven or eight large buckets of wedding rings, mostly gold, had been collected from all over the city. Voigt declined to accept responsibility for the valuables, worth over a million pounds even then; they were still waiting on the right bank of the river when the Russians arrived in the city two days later, on May 8. Professor Fetscher, a local communist leader, went across the bridges with a white flag to greet the 'liberators'; he was cut down by a salvo of machine gun bullets from the advancing Russian troops.[31] It was the last day of the war. Truly it could be said that the total destruction of Dresden had not hastened its fall by one day.

Red Army officials moved into the ministry buildings and the complete collection of valuables including the wedding rings was transported without further ado as booty to the Soviet Union. Plundered too were the priceless collections of paintings, including the Sistine Madonna which had survived the air raids in a railroad tunnel. The three hundred and more clerks working in the VNZ organisation in Dresden-Laubegast were evicted from their offices and all identification work ceased. Hanns Voigt was instructed to remove the office and its records to new quarters in the Dresden Leuben town hall. He was permitted to retain three clerks. Inevitably all

attempts at registering new victims ceased, and the work of Voigt's staff devolved on further processing the eighty to ninety thousand index cards he had collected for the known and unknown victims during the months following the raids.

The Red Army took over the former offices of the dead persons' section in Laubegast and with their characteristic contempt for order had turned loose a score of stolen pigs in the shed housing the clothing cards which were the last hope for identifying some eleven thousand victims. A few days later Voigt heard that the cards had been burned because of their offensive smell. The Russians ransacked the filing cabinets, vandalised the registers in their search for valuables, and made a lavatory in the middle of the volumes of the indexing and registering system which they had shredded. Communication with the seven districts was broken off. Voigt disbanded the dead persons department of Dresden's Missing Persons Bureau on June 11, 1945. True to their insistence that the Allied air forces were not an effective weapon of war the Soviet authorities refused to accept his estimate of the death roll – he put it at 135,000 – and, according to him, 'simply struck off the first digit' to arrive at their figure of thirty-five thousand dead.

The post-war communist mayor of Dresden, Walter Weidauer, adopted the lower figure in his own otherwise authoritative book on the raids.[32] In the manner at which the communists were adept, he polemicized against Hanns Voigt, who was by then living as a teacher living in western Germany. Voigt bitterly rued the day he was drawn into the controversy.[33] Weidauer's figure was adopted by the west German government too, in place of the 60,000 estimated by its own Federal Statistical Office, and they have used it consistently after reunification in 1990.[34] The German government has also urged the Dresden city authorities to abandon the annual commemoration ceremonies.

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As the figure for the Dresden death roll has been widely disputed since the end of the war, this study would be incomplete without some attempt to arrive at a best figure for the numbers of those killed in the raids. At the time of the attacks in addition to its full peace time population of 650,000 citizens Dresden was housing

perhaps three of four hundred thousand, and probably even more, refugees from the east. According to one news report issued from Germany on February 17 there were two and a half million people crowded into Dresden on the night of the raid, but this may be an over-estimate.

By chance, as was described in an earlier chapter, the last officially organised refugee trains from the eastern provinces to Dresden had been unloaded only on the day before the first of the three raids. The first of the refugee trains westward was not planned to leave for some days. For this reason, just on that night the population was at its highest. The city had no shelters, no sirens (after the first raid), no defences, and no experience of raids on a scale anything like these. These factors, coupled with the most violent fire-storm in history, must inevitably have caused casualties substantially greater than in Hamburg.

In the heart of Hamburg's fire-storm area about one person in three had been killed in the 1943 raids. In the Hamburg district of Hammerbrook, the fire-storm had killed 361 people per thousand inhabitants. In Pforzheim, later in February 1945, the British fire-storm raid also killed nearly one person in three, about twenty thousand people. If a death roll on this scale was possible in Hamburg, a city where the most elaborate precautions had been taken, it seems reasonable to assume at least the same proportion of fatalities during the triple blow raid on Dresden, where the raids did not take place over a week of anxious, alert days and nights as in Hamburg, but suddenly descended on the city, taking it all unawares, within the space of fourteen hours. In Hamburg, those who were most likely to lose their nerve – those who by getting in the way of the fire fighters or panicking might have increased the death roll – had long been evacuated. Dresden however was overflowing with these very evacuees from the other German cities.

As in Hamburg, the Dresden fire-storm had embraced the most densely populated area of the city; of the 28,410 homes in the city centre (Dresden IV, including districts 1, 2, 5, and 6) the November 1945 survey showed 24,866 homes totally destroyed; a Dresden inhabitant returning to the city after the raids was informed at the VNZ office that of 864 inhabitants in Seidnitzer Strasse registered with the police on the night of the attack only eight were known to have survived; at No 22 Seidnitzer

Strasse, his former home, he was told that of twenty-eight inhabitants, only one had survived; of No 24, next door, he was informed that all forty-two inhabitants had been killed. These two examples are more than sufficient to show the crushing effectiveness of the Allied raids on Dresden.

Immediately after the raids there was the usual tendency – encouraged on this occasion, we suspect, by Dr Goebbels – to exaggerate the number of casualties. While official sources in Berlin put the death roll in Dresden between 180,000 and 220,000, and propaganda ministry officials spoke of a figure between two and three hundred thousand, a few days later the figure was more modestly estimated by the authority responsible for relief measures in blitzed cities as 'between 120,000 and 150,000 people lost.'[35] This figure, reached only very shortly after the raids, was close to the assessment by Hanns Voigt of the dead person's section, perhaps the Dresden official best placed to know.

The first edition of this work published in April 1963 accepted Voigt's estimate of 135,000 dead as 'the best estimate', with the limits sets by the Berlin authority as the degree of doubt in the figure.

The subsequent discovery of the Dresden police chief's report, with its substantially lower figures, must inevitably cast doubt on these estimates: in April 1966, three years after THE DESTRUCTION OF DRESDEN was published, the director of the Dresden city archives wrote to the author from the Soviet zone of Germany to reveal that the 'original order' of Lieutenant-Colonel Wolfgang Thierig, who was in 1945 the police commandant of Dresden, had turned up; and that this eleven-page document mentioned an interim death roll of 28,000 identified victims. The Thierig report was relatively early however – though dated March 15 it reported only the state of affairs up to eight A.M. on March 10, 1945).[36]

It is an important document nonetheless. Headed "Höherer S.S. und Polizeiführer in the Gau Halle-Merseburg and Gau Saxony and Wehrmacht District IV, and subheaded "Commander of the Regular Police" (Ordnungspolizei), this is the only known final report on the four air raids on Dresden on February 13, 14, and 15.

That this east German document was authentic was confirmed beyond doubt by the virtually simultaneous discovery in the *West* German government archives, among

twenty-five thousand newly accessioned files of the Reich ministry of finance, of the 'Situation Reports on Air Raids on Reich Territory' dated between February 23 and April 10, 1945.[37] Situation Report No 1404, dated March 22, 1945, contained as a supplement the police report already quoted, repeating precisely the same data including the then (March 10) current death roll of 18,375, the estimated final total of twenty-five thousand, and reference to the thirty-five thousand persons still missing.[38] Despite the reproaches of the publisher of THE DESTRUCTION OF DRESDEN, William Kimber, the author felt bound to submit to The Times an immediate letter drawing attention to these new documents, notwithstanding that the figures they contained were at variance with those in his book.[39]

So how many did die in Dresden? The key element is probably, over and above the identified death roll, the vast number of missing people which even the Dresden police chief put at thirty-five thousand. The police president of Darmstadt, in his report on the raids of September 1944, stressed that in catastrophes of this scale very often whole families were wiped out, leaving nobody to report anybody as missing; the same would go for the refugees. It is unlikely that given the magnitude of the Dresden catastrophe the police authorities could have conducted a realistic estimate in the short space between the raids and the reporting date, March 10, when much of the city was still under rubble and ruins that have, indeed, not been excavated to this day.

Sixty thousand or more; perhaps a hundred thousand – certainly the largest single air raid massacre of the War in Europe. (The raid was thus comparable with the fire attack on Tokyo on the night of March 9–10, 1945, delivered by the Superfortresses of the United States 21st Bombardment Command; here 83,793 were killed, while in the atomic bombing of Hiroshima five months later 71,379 Japanese were slaughtered.)

There was one small comfort. Dresden was the last great city which could expect such devastation. 'At least,' Goebbels consoled himself, 'we can expect that the tragedy of Dresden can never be exceeded.'

[1] Kate Jaeschke, of Köln-Klettenberg, to the author, Mar 21, 1961.

[2] Günter Arnold to the author, May 26, 1961.

[3] Air Ministry, RE.8, 'Area Attack Assessment: Dresden,' undated, filed Oct 30, 1945. Cited by Walter F Angell Jr., 'Historical Analysis of the 14–15 February 1945 Bombings of Dresden.' (USAF Historical Division Archives). This document estimated the likely casualties in the raid between 8,200 and 16,400 killed.

[4] These Nov 1949 statistics included of course the damage done to the city by all the attacks including the later American attacks as well. As this was not the principal area hit by the U.S. Army Air Forces on March 2, April 17, and April 19, 1945, it is difficult to understand the lower figures given in the British Bombing Survey Unit's statistics.

[5] See too *Dokumente deutscher Kriegsschäden*, published by the Bundesministerium für Vertriebene, Flüchtlinge und Kriegsgeschädigte, vol.i, Bonn 1958.

[6] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35). – 1,525 heavily damaged, 1,375 less seriously, and 9,867 slightly damaged.

[7] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[8] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[9] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[10] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14.

und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[11] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35). – It is worth noting that the ratio of injured to dead active police officers (24:31) was 0.774; the ratio of injured to dead fire brigade police officers (132:171) was 0.771. The ratio of injured to dead civilians identified by early March 10 (15,930:18,375) was 0.867. These figures show a large degree of conformity. – Lieutenant-Colonel (GS) Werner Bühlmann, who was chief operations officer of IV Army Corps HQ in Dresden, wrote to the author on Jul 21, 1965 that on returning three days after the raids to his post he found that half of his colleagues were dead or missing. (Author's microfilm DI–35).

[12] Walther Hahn made the photographs available to the author when he visited Dresden in 1961; he also furnished duplicates of the colour transparencies – alas, duplicated on communist East German stock, which has faded over the years. In return for exclusive rights to use the photographs in the west, the author supplied Hahn with stocks of high quality photographic paper unobtainable in the east. When the boxes of paper arrived in Dresden they were useless; they were marked: 'This box has been of5cially opened and exposed to light.' On the morning after Hahn's death a few years later the People's Police surrounded his villa and seized his entire photographic collection 'for the people'. The communist authorities of the Fototek (city photographic archives) marked the most gruesome negatives with a red cross, never to be published. 'For you, Mr Irving, of course we make an exception,' they said when he next visited the city in 1990, before reunification. Hahn's original colour transparencies had vanished without a trace in the interval; the author's duplicates alone have survived.

[13] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[14] S.S. Gruppenführer Kehrl, 'Bericht des Polizeipräsidenten in Hamburg als örtlicher Luftschutzleiter über die schweren Großangriffe auf Hamburg in Juli/August 1943.'

[15] Seventh Army interrogation SAIC/X/5 of Hermann Göring.

[16] Helmut Sündermann, *Deutsche Notizen*, 'Feb 17,' 273; Interrogation of Baron von Steengracht,

CCPWE No. 32, DI–19, Jul 2; and by US State dept., Sep 4, 1945.

[17] A news item in *Basler Zeitung*, Feb 19, 1949. This adds that Goebbels abandoned the plan because the BBC revealed details on Feb 22; at his next ministerial conference he threatened to strangle the culprit with his bare hands.

[18] Diary, Mar 30, 1945. – On this subject see Ribbentrop, *Von London bis Moskau*, 266f; Jodl to Hitler, Feb 21, 1945 (ND: 606–D) and notes, Jan 15, 1946 (Jodl papers); William Scheidt's notes in *Echo der Woche*, Oct 28, 1949; and the testimonies of Helmut Sündermann, Baron Steengracht, and Hitler's stenographer Ludwig Krieger (IfZ, Irving collection). Kaltenbrunner also claimed credit for thwarting JG, in conversation with Dr Hermann Neubacher. USFET MISC CI–RIR/4, Feb 1, 1946 (NA file RG.407, entry 427, box 1954b).

[19] Fritzsche's testimony reported in *New York Times*, Jun 29, 1946.

[20] Conversation between Steengracht and others, Jul 2, 1945 (CCPWE No. 32, Report X–P. 21 (PRO 5le WO. 208/4969).

[21] Wilfred von Oven, loc. cit., 277–8.

[22] 'Der Tod von Dresden', in *Das Reich*, Mar 4, 1945.

[23] Goebbels diary, Mar 22, 1945.

[24] Ebermayer & Meissner, *Revue*, No. 26, Jun 28, 1952.

[25] This Order of the Day is also quoted by Max Seydewitz, loc. cit.

[26] Typed copy of document, signed 'Für den Befehlshaber der Ordnungspolizei. Der Chef des Stabes, gez. *Grosse*. Oberst der Schutzpolizei,' headed: 'Dresden, den 22.3.1940 [corrected in handwriting into: 1945]. Der Befehlshaber der Ordnungspolizei. Tagesbefehl Nr. 47.' In the author's possession (Author's microfilm DI–35).

[27] HSSuPf Elbe in den Gauen Halle-Merseburg, Sachsen, und im Wehrkreis IV: Befehlshaber der Ordnungspolizei, 'Schlußmeldung über die vier Luftangriffe auf den LS-Ort Dresden am 13., 14. und 15. Februar 1945', signed [Police colonel Wolfgang] Thierig, Eilenburg, den 15. März 1945 (Dresden city archives) (Author's microfilm DI–35).

[28] Chef der Ordnungspolizei, 'Lagemeldungen über Luftangriffe auf das Reichsgebiet,' Nr. 1404, Mar 22, 1945 (files of Reichsanzfinanzministerium, Bundesarchiv, R. 19/341) (Author's microfilm DI–35).

[29] Author's interview of Eva Grosse, Munich, Jul 10, 1965 (Author's microfilm DI–35). Gerhard Gustav Hermann Grosse himself, born Feb 14, 1892, died in 1949. She showed the author her hus-

band's military papers, testimonials, and letters while in captivity, and these showed certain similarities in words and phrasing with the 'Tagesbefehl.' – In Feb 1965 Dankwart Guratzsch, a Dresden-born postgraduate student of history in Hamburg, wrote to Rolf Hochhuth stating that he had an original copy of the Tagesbefehl; he had retrieved it on a visit to Dresden a few months earlier. It had been found by a pupil of his father, who had been a member of Dresden's police in Feb and Mar 1945 (2nd precinct, in Circus Strasse, in the centre between Stübel Platz and Pirnaischer Platz); it was a typed original with several handwritten corrections. – I also received a copy from Walter Hahn.

Grosse's figures were allegedly provided by Dr med Max Funfack, described as the deputy surgeon-general of Dresden. Funfack, still living in the Soviet zone, protested on January 19, 1965 at finding his name dragged into the newspaper columns of west Germany as a witness for the death roll figures. He claimed to have learned such figures at third hand only, and never to have been deputy surgeon-general (stellv. Standortarzt). He will have had good reason in the Soviet zone to express himself thusly. He did not however take the opportunity to repudiate the figures.

30 Circular by Gau Hessen-Nassau, No.44/43, Aug 10 (NA film, T81, roll 168, 7579f); based on Propaganda Parole No.59, signed [Alfred-Ingemar] Berndt and [Werner] Wächter, Aug 7, 1943 (NA film T81, roll 672, 0890f).

31 In a famous public altercation with the author, Fetscher's son Iring Fetscher claimed it was the S.S. who had murdered his father; not so, wrote his mother to the author, apologising for her son's public attack on the author.

32 Walter Weidauer, *Inferno Dresden* (West Berlin, 1966).

33 Voigt wrote the author an angry letter in August 1966: 'The figures for seriously or slightly injured are pure fiction as they could never have been determined.… None of these gentlemen,' he added, referring to Grosse and Thierig, 'who signed these protocols and final reports, was actually there, in direct contact with the tragic circumstances.' He pointed out too that quantities of Missing Persons reports submitted to the police authorities were returned to him, unprocessed, in May and June 1945.

34 In a letter to *Welt der Literatur* on Feb 5, 1965 General Hans Rumpf, inspector of Germany's wartime fire-fighting services, declared that the estimated Dresden death-roll of 60,000 issued by the Federal Statistical Office (Statistisches Bundesamt) seemed most likely to him; but Rumpf was himself the originator of this figure to the federal office.

35 Hans Sperling, German Federal Statistical Office, to the author, Apr 25, 1962.

[36] Dr Walter Lange (Stadtarchiv Dresden) to Irving, Apr 5, 1966 (Author's film DI–35)

[37] I had asked the Bundesarchiv in Dec 1964 to comment on Grosse's 'Order of the Day.' The archivist Dr Boberach kindly drew this new discovery to my attention in May 1966. Boberach (Bundesarchiv) to the author, May 13, 1966 (Author's microfilm DI–35).

[38] Chef der Ordnungspolizei, 'Lagemeldungen über Luftangriffe auf das Reichsgebiet,' Nr. 1404, Mar 22, 1945 (files of Reichsanzfinanzministerium, Bundesarchiv, R. 19/341) (Author's microfilm DI–35).

[39] David Irving, letter: 'The Dresden Raids,' *The Times*, Jul 7, 1966 (Author's microfilm DI–35).

Part Five

THE SCAPEGOAT

The Reaction of the World

A FEW MINUTES before nine A.M. on February 14, 1945, even as the new formations of Flying Fortresses were already heading out toward Dresden, the first full length bulletin announcing the execution of the R.A.F. attacks of the preceding night was released by the British Air Ministry.

In a statement describing the target in perhaps unusual detail, the ministry stressed the importance of Dresden to the enemy. As the centre of a railroad network and as a great industrial town it had become of the greatest value for controlling the German defences against Marshal Koniev's armies. The telephone services and the means of communication were almost as essential to the German army as the railroads and roads which met in Dresden. Dresden's buildings had been desperately needed for troops and administrative offices evacuated from other towns, the bulletin added. With rather less accuracy, the statement pointed out that 'among other war factories, Dresden had large munitions workshops in the old Arsenal, and a great number of light engineering works engaged in war production of all kinds.' There were important factories making electric motors, precision and optical instruments, and chemicals. The city was comparable in size with Manchester.[1]

In its own secret weekly digest, which was not intended to have the same wide circulation as the Air Ministry bulletins, Bomber Command was satisfied with de-

scribing Dresden in the vaguest terms, as a city which had developed into a target of first class importance, and of high priority as a communications centre and control point in the defence of the eastern frontier of Germany.[2]

The news of the attacks was released to the public by the British Broadcasting Corporation in its six P.M. news bulletin. This B.B.C. bulletin described the raid as one of the more powerful blows promised by the Allied leaders at Yalta. 'Our pilots report that as there was little flak they were able to make careful and straight runs over targets without bothering much about the defences. A terrific concentration of fires was started in the centre of the city.' It is of possible significance that the open admission that the raids on Dresden had been promised to the Russians at Yalta was omitted from the main nine o'clock news bulletin that night. The raids on Dresden, referred to as 'a great industrial city' comparable with Sheffield, were now termed an example of the 'further close co-operation between the Allies.'[3]

When the full extent of the Dresden tragedy became widely known throughout the world, and especially after the British prime minister had penned his reproach to the bomber commanders for the triple blow, as we shall see, the temptation and the tendency were to imply that the Russians had *requested* the raids. The Soviet zone authorities for their part did not, in the Cold War period, miss the opportunity of exploiting the apocalypse in Dresden to generate anti-western propaganda in eastern and central Germany; it became an annual event, every February 13, for the church bells to be run throughout the zone from 10:10 until 10:30 P.M., the duration of R.A.F. Bomber Command's first attack on the city. To the embarrassment of the western Allies, this custom even spread for a while to West Germany and it was in an attempt to discourage this development that the State Department announced in Washington on February 11, 1953, to forestall further demonstrations, that the 'destructive wartime bombing of Dresden was done in response to Soviet requests for increased aerial support and was cleared in advance with the Soviet authorities.'[4]

While, as we have seen, this announcement did not fundamentally contradict the facts, it was plainly hoped that either in time or in translation this statement would be quoted as proof of a Russian *demand* for an attack on Dresden, and not just complicity. If this was indeed the hope, the Americans were not disappointed for by

February 1955, the tenth anniversary of the raids, even responsible newspapers like the *Manchester Guardian* were readily recalling the bombing of Dresden as an operation which had been 'carried out by British and American planes as a result of the Soviet request to attack this important communications centre.'

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In Germany itself the first terse report appeared on February 15 in the official communiqué of the German High Command (OKW): 'FEBRUARY 14, 1945: Last night the British turned their terror-raids to Dresden.'[5] In the German national newspapers there was no further direct mention of the raids or their consequences until after the beginning of March. German foreign language broadcasts were not so reticent however and these unleashed a shrill storm of propaganda abuse against Britain and America into the ether.

The B.B.C.'s monitoring service had published throughout the war a daily confidential report on both Allied and Axis broadcasts, amounting to some seventy or eighty pages each day. On February 15 the main Monitoring Digest prefacing the report was unusual in that it surveyed only one topic, the reaction not only of Germany but also of the neutral and Allied countries to the first news of the Dresden raids. From all the German controlled stations it was apparent at once that the propaganda ministry was pulling out all the stops of its propaganda organ, and using every possible means to exploit the tragedy to the full.[6]

Thus at three P.M. that day the B.B.C. monitors picked up a transmission in an Arabic tongue from a station calling itself Free Africa – obviously a clandestine German station: 'It was reported from London,' this spurious station announced, 'that the number of refugees in Dresden had increased enormously; at the same time the British news service reported that Allied aircraft had launched the biggest attack in history on Dresden. Such reports need no comment; it is obvious that these heavy raids were directed against the millions of refugees and not against military targets.' This served to provide a very clear picture of so-called Allied humanity, the broadcaster suggested: 'But patience: tomorrow is not far away!'

At 3:57 P.M. the official German foreign information telegraphic service commented bitterly on the B.B.C.'s description of Dresden as a major communications centre. 'Dresden's factories mainly manufactured toothpaste and baby-powder,' the German service insisted. 'Nevertheless, they were bombed. As in all large towns the Dresden goods stations lie on the outskirts of the town; only the passenger station is in the centre. But troops and war materials are not transported from passenger stations, only from goods stations.' The attack on the centre of Dresden could therefore not be justified from a military point of view.

'The Americans,' the transmission continued, 'who claim to possess the best bomb sights in the world, have elsewhere proved that they can hit precision targets whenever they please. It would therefore have been possible to have spared the residential districts of Dresden, and the historic town centre. The use of incendiaries proves that the architectural treasures and residential districts were being deliberately attacked. It is pointless to drop incendiaries on railway installations; they have never been used to destroy railway installations in this war.'

With heavy sarcasm the bulletin concluded that the Allies were claiming to stand on the threshold of victory, yet they had found it necessary to reduce Dresden and Chemnitz to ashes. (The inclusion of Chemnitz was a characteristic Goebbels tactic: although the latter raid was largely a failure, he had long recognised that if the enemy heard from the Germans' own broadcasts that a target was destroyed, they would be less inclined to come again; Chemnitz, with its big tank-engine works, was a target which needed a long respite.)

The neutral countries were evidently horrified at the stories reaching them from their own correspondents inside Germany. At 10:15 P.M. on February 15 a Swedish news bulletin transmitted to occupied Denmark proclaimed that between twenty and thirty-five thousand people were already known to have lost their lives in the Dresden holocaust. 'Yesterday morning six thousand victims were dug out,' the station reported.

Fifteen minutes later the 'New British Broadcasting Station,' like 'Free Africa' a clandestine German-controlled station, beamed to England a curious piece of propaganda about the raids which the B.B.C. Monitoring Service again deemed necessary

to transcribe in its entirety. 'The night before last I was sitting with a colleague who understands a bit of German, and we were listening to a special radio programme in Germany which is supposed to let the German population know which part of the Reich our bombers are attacking.' So the bogus Englishman began. 'The Jerry who was speaking kept on breaking into the music with his guttural Achtung, Achtung! Then my friend would translate what he was saying. I must say it felt damned queer sitting there and hearing about the way our waves of bombers were going to unload their cargoes of death and destruction on Dresden. One minute I found myself thinking, Well, against air war like this, the Jerry won't be able to carry on for long. But then the very next moment I found myself thinking, Who the devil is going to get anything out of it? We contribute the bombs and the machines and the crews who don't return from these raids. The Dresdeners themselves don't get anything out of it, naturally. The only ones who look like getting anything are the Russians – they get Dresden at our expense.' 'I wasn't unduly worried about human considerations,' the voice concluded, broadly. 'After all, we must win the war. But I don't see any reason why we should go and kill people for the benefit of the Russians alone. Do you?'

The next day, the German-controlled Scandinavian Telegraph Bureau reported that Dresden was not 'one great field of ruins.' It added that all communications between Dresden and the rest of Germany had been broken. The number of dead was reported to be seventy thousand.[7] Now even the Moscow newspapers were reporting the raids.

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Unwilling to incur the further censure of world opinion, already deeply disturbed by the accounts flooding the world's telegraph wires of the fate of the eastern population centres, the American bomber commander had prudently dispatched his aircraft on Thursday February 15 to attack oil targets at Ruhland and Magdeburg as primary targets; eleven hundred Eighth Bomber Command aircraft undertook to 'bring the oil offensive up to date.'[8]

Fate was once again unkind to Dresden and Chemnitz; visibility over the primary targets was poor, and the bombers were diverted to attack secondary targets – the only primary target still clear for attack being the Brabag oil refinery at Rothensee

near Magdeburg; thus 210 Fortresses were diverted from Ruhland to Dresden, where exactly at noon they dropped 461 tons of bombs, using instruments alone, on the 'city area.'

Other Bombardment Groups, notably those of the First Air Division, had been briefed for missions giving Dresden as a secondary target for attack but their whole operations were scrubbed before take-off.

The bombs which were dropped on the Dresden were not, it must be said, particularly noticed by the population, and they must have seemed a paltry affair after what the city had already suffered.

The Third Air Division, it might be observed, was briefed to attack Cottbus 'city', a detail which has since gone down in the American official history as 'Cottbus marshalling yards.' One thousand tons of bombs were dropped here; the attack was reported, perhaps significantly, as being 'in full view of the advancing Red Army.'

To critics in England who might be tempted to reiterate the observation that these raids were serving only the Russians, the answer was officially given in a Times editorial in these words: 'The Eastern and Western Fronts are now sufficiently close for blows aimed at German cities between them to have an effect on both fronts simultaneously, and the targets were selected for that purpose.'[9]

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An ill-phrased news item published world-wide now brought things to a head. The Allied air commanders at General Eisenhower's Supreme Headquarters Allied Expeditionary Forces (S.H.A.E.F.), in France, must have realised that world opinion was unsettled by reports of the massacres in first Berlin and now Dresden. It was at this time, on the afternoon of February 16, when the German propaganda campaign was approaching its climax, that the air commanders entrusted to a British air commodore the duty of informing Allied press correspondents of the new policy that was being implemented for this offensive.[10]

The officer, Air Commodore C M Grierson, had been seconded to S.H.A.E.F. as A.C.S. 2 (intelligence) of[5]cer; it was his task to motor once a week from Reims to Paris to hold a press conference on the development of the air offensive against Ger-

many. The language which Grierson used in his briefing could have been more elegantly worded, given the background of the attacks on Berlin and Dresden – attacks which the British and American governments were still insisting had been executed solely against military targets in the cities.

The new Allied plan was, he said, to bomb the large population centres and then to attempt to prevent relief supplies – food and medical supplies – from reaching them, and refugees from leaving them.[11]

There was worse. In the course of a reply to a question out to him by a correspondent, Grierson apparently referred to German allegations of 'terror raids'; once utilised, the phrase remained in the mind of the journalist representing the Associated Press, Howard Cowan.[12] Within an hour the A.P.'s dispatch was being put out from Radio Paris and cabled to the United States for inclusion in the next morning's newspapers. It read:

> Allied air chiefs have made the long-awaited decision to adopt deliberate terror-bombings of German population centres as a ruthless expedient of hastening Hitler's doom. More raids such as those recently carried out by heavy bombers of the Allied air forces on residential sections of Berlin, Dresden, Chemnitz, and Cottbus are in store for the Germans, for the avowed purpose of heaping more confusion on Nazi road and rail traffic, and to sap German morale. The all-out air war on Germany became obvious with the unprecedented daylight assault on the refugee-crowded capital, with civilians fleeing from the red tide in the East.[13]

For one unhappy moment what might be termed the 'mask' of the Allied bomber commands appeared to have slipped. Cowan's and other press accounts of the S.H.A.E.F. communiqué implied that the American and British air forces had begun a deliberate campaign of indiscriminate 'terror bombing', thereby deviating from long-established policies concerning the employment of Allied strategic air power.[14] The A.P. dispatch – which was a highly tendentious version of the air commodore's briefing – was broadcast throughout liberated France and printed across North America as front page headlines: Not only R.A.F. Bomber Command, whose own

night air offensive had long been viewed with suspicion in the United States, but also their own U.S. Strategic Air Forces were now delivering terror-raids on German civilians.

At the time the news broke in America many people had just finished listening to a radio message beamed across the Atlantic by German short-wave transmitters in which the American bombers raid on Berlin raid was condemned: 'General Spaatz knew that it was taxing the ingenuity of German organisation to cope with the feeding and housing of non-combatant refugees, of whom hundreds of thousands have fled before the organised savagery and terrorism of the communist Red Army invading East Germany. General Spaatz also knew that the available German air forces were concentrated on the eastern front to combat the Red flood which threatens to destroy Germany and all Europe. These are acts of exceptional cowardice.' The broadcast added, as a parting shot, that the German Wehrmacht had awarded General Spaatz the Order of the White Feather for his part in this cowardly crime.

Such was the Nazi propaganda, and now it was apparently being confirmed by an official spokesman from S.H.A.E.F, Air Commodore Grierson.

British listeners were fortunately spared the dilemma which faced the American public. The British government, which received news of the unfortunate S.H.A.E.F. press conference at 7:30 P.M. on the evening of February 17, imposed a total press ban on publication of the dispatch only thirty minutes later.

Coupled with the stories coming through neutral countries about the carnage in Berlin and Dresden, it caused extreme disquiet in Washington. On February 17 General H H Arnold, commander in chief of the U.S. air forces, cabled Spaatz to inquire whether there was any significant distinction between blind bombing by radar on military targets in urban areas, as had been decided between Spaatz and Bottomley over lunch that day in Bovingdon, and 'terror' bombing such as the S.H.A.E.F. communiqué – as reported by the Associated Press – claimed the Americans were now indulging in.[15] General Spaatz replied perhaps a shade cryptically that he had not departed from the historical American policy in Europe – not even in the cases of the February 3 raid on Berlin and the February 14 raid on Dresden. The uproar shocked Spaatz. He had only just sent General Eisenhower a fine set of photographs

of bomb damage to German targets; Eisenhower's chief of staff Walter Bedell Smith had written facetiously congratulating him: 'They prove without question that you have been a very busy woman the last couple of years.'[16]

But people now were looking for scapegoats. On February 18 General Spaatz cabled a circumspect reply to Arnold, 'It has always been my policy that civilian populations are not suitable military objectives. Regret that I have caused you concern by inadequate reporting of my Directives. Bottomley's directives and mine although generally parallel in priorities and issued after mutual consultation, often reflect the difference in capabilities of the two forces. On this occasion I did not issue a complete new directive since it was necessary only to change emphasis within the Priorities of Directive Number Three. … My instructions to Eighth Air Force as of 30 Jan are essentially paraphrased as follows: since attacks visually on Oil are first priority, anticipate that bombing of targets in Berlin will be by Pathfinder methods. Bombing of Berlin at this time takes Priority after visual bombing of major synthetic plants, in the Leipzig area particularly, with next priority to lines of communication in the Cassel-Ruhr-Cologne area. … Bombing under such circumstances is not precise but Berlin has such importance, particularly at this time, as a centre of communications, administration and industry that its value as a military target justifies bombing from time to time. … Dresden has been attacked several times recently as a communications target important to the eastern front. … I do hope this clarifies the matter to your satisfaction.'[17]

Arnold expressed continuing disquiet.[18]

Major General Frederick L Anderson then signalled to Arnold on February 18: 'I assure you that there has been no change in the American policy of precision bombing directed at military objectives nor does the bombing of Berlin by H2X create a precedent.' He quoted again his directive of January 30, explaining: 'At that time the Sixth Panzer Army was believed to be moving from the western front and there were indications of other substantial reinforcements all heading for the eastern front.' Berlin was a focal point in the defence against Zhukov's spearhead. 'Other key communications centres such as Dresden, Chemnitz, Cottbus, and Leipzig took on a great significance which was appreciated both by the Russians and ourselves.' He

concluded, 'I have read the Associated Press story by Howard Cowan transmitted to us this date and can appreciate the unfortunate effect that this article will have and the great concern that it has caused you. My recommendations on the PR aspects on this story are being forwarded separately. This is from Anderson. General Spaatz is in Mediterranean and is being informed.'[19]

That same day General George C McDonald, Spaatz's Director of Intelligence, sent a three-page memorandum expressing himself in the bluntest terms to Anderson about the new directive to bomb cities like Berlin, Leipzig and Dresden, stating that it put the American army air forces unequivocally into the business of area bombardment of congested civil populations. 'No intelligence available to this Directorate indicates that destruction of these cities will decisively effect the enemy's "capacity for armed resistance."' He continued: 'Five years of indiscriminate aerial bombardment (latterly conducted on a stupendous scale) have produced no decisive results yet. They have not broken the German will to fight. Nor has the obliteration of whole cities shown any signs of reducing the German "capacity for armed resistance."' The destruction of these cities had barely dented the German war economy and the transportation links through the cities had barely been disrupted. McDonald emphasised that he was flatly opposed to these terror raids, and went so far as to call them the 'extermination of populations and the razing of cities.'[20]

This telegraphic discussion was conducted over vast distances, and the controversy was gradually allowed to subside. General Spaatz determined not to deliver any more raids on the pattern worked out between himself and Bottomley.

The German government was however aware in a way that neither the outside world nor indeed its own public could be, of what had really transpired in the Saxon capital and it had no intention of relinquishing such a meaty propaganda opportunity. The Associated Press dispatch had by now reached Berlin through Sweden. The very manner in which it had been issued by S.H.A.E.F. and then hastily recalled, the way in which the British government alone had clamped a total ban on its publication, suggested that there was much more to all this than met the eye.

While up to that point many Germans had dutifully described Allied raids on German cities in the standard jargon a 'terror' raids, now there were many who could

believed that perhaps that was what they really were. If the British government refused to tell the British people what was being done by R.A.F. Bomber Command then the German government must take the necessary steps to do so. William Joyce, the renegade Irish broadcaster for the German government, was instructed to include in his next Views on the News broadcast to England a speech on Dresden. Since Joyce – known as 'Lord Haw-Haw' – was recognised to have millions of English listeners for each broadcast, the B.B.C. again felt it necessary to report on the speech in full. At 10:30 p.m. on February 18 the familiar and hateful voice of 'Germany calling' began the task of informing the British people of the terror-raids. He began:

> British propagandists are boasting that by attacking such cities as Dresden, the R.A.F. and U.S. air forces are co-operating with the Soviets. They do not remember any occasion on which the Soviet High Command has troubled itself to co-operate with British efforts. Incidentally, Eisenhower's headquarters have now issued a stupid and impudent denial of the obvious truth that the bombing of German towns has a terrorist motive. Churchill's spokesmen, both in the press and on the radio, have actually gloried in the air attacks on Berlin and Dresden, on the refugees from the East. Various British journalists have written as if the murdering of German refugees were a first-class military achievement. I shall always remember how, alluding to the attack on Dresden , one B.B.C. announcer happily prattled, 'There is no china in Dresden today.'
>
> That was, perhaps, meant to be a joke: but in what sort of taste? Far be if from me to strike a sentimental note amidst the grim and dark realities of this phase in a gigantic struggle, which is destined to decide more than the fate of porcelain…

Joyce concluded his acerbic broadcast by enumerating the architectural treasures destroyed in Dresden, and describing the massacre of the refugees.

Faced with this massive propaganda barrage from every Nazi-controlled radio station in Europe, the only recorded Allied counter blast was a German language broadcast from France's Radio Bir-Hakeim: broadcasting to Germany it announced that

during the air raid on Dresden, fire fighting crews had been hastily organised consisting of HitlerYouth members and the elderly. 'Instead of the fire-fighting implements which they had expected and desired, they were given rifles, taken to the station and forced to leave to the front without saying good-bye to their parents.' Quite apart from the painfully obvious detail that the Dresden railroad stations, as well as all lines to the front, were supposed to have been totally destroyed in the raids, it will be agreed that there were times when the German propaganda arguments had a definite edge on those from the Allied stations.

On Saturday February 17 S.H.A.E.F issued a second communiqué in which that of the previous day was formally taken back. Unfortunately the briefing officer on this occasion described the killing of refugees as being accidental: the Allied bombing raids on German targets, it was now claimed, pursued the sole aim of destroying towns as transportation or oil production centres. The attack on Berlin had been made to destroy communications through the capital. The raid on Dresden, S.H.A.E.F. now claimed, had had the same object; it was a pure accident that at the time of the raids the city was crowded with refugees.

'Ever since Air Chief Marshal Harris, the British bomber chief, stated that the main object of the raid was to break the morale of the German civilians,' commented the German telegraph service two days later, 'ever since the British prime minister painted a grim picture of a Germany where starvation and would rot out Britain's enemies in the same way as air raids, there has been no doubt that the S.H.A.E.F. war criminals have cold-bloodedly ordered the extermination of the innocent German public by terror-raids from the air.'

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From neutral countries reports word London of the horrors in Dresden. The Berlin correspondent of the Swedish newspaper *Expressen* was monitored cabling this dispatch to Stockholm: 'Berlin Government circles are greatly upset by the Allies' most concentrated attack in this war, that is, the attack on Dresden. All communications with Dresden have been cut, as the main telegraph office, the post office, the railway stations and the general headquarters were destroyed. For the first time

since the concentrated attack on Hamburg in July 1943, the number of fatal casualties was disproportionately high, because the town was more crowded with refugees from Czechoslovakia and Silesia than Berlin, and all the barracks were crammed. The number of dead is reported to be 70,000.'[21] On the following day another Swedish newspaper reported that Dresden had been so completely destroyed that the order for its total evacuation had been given. 'The number of fatal casualties is now reported to be 100,000.' A refugee who had travelled in an army vehicle car to Jüterbog near Berlin had reported that the old part of Dresden was completely destroyed, and that it was easier to count the houses which were still intact in the newer parts. 'At the time of the attack two and a half million (700,000 normal) people were living in Dresden. None of the neighbouring towns could send help because all the approaches to Dresden were crowded with refugee columns, peasant carts, pushcarts and army vehicles. Low-flying American aircraft strafed them, and military cars now bar the roads.'[22]

As the propaganda campaign against the British and Americans gathered momentum, as the Swedish, Swiss and other neutral countries began to print horrifying descriptions for the world to read about what the Allies had done to Dresden, the German information service, with its constantly reiterated claim that R.A.F. Bomber Command was delivering pure terror raids on German civilians, was gaining its most surprising apparent convert in the British government – the one indeed who had the most to know the real origins of the bomber assault on Dresden.

The bombing offensive meanwhile pressed on. On February 23, 1945 Nos 1, 6, and 8 Groups of R.A.F. Bomber Command, with planes piloted sometimes by airmen with names like Ziegenhirte, Schlichtinger, and Schmidt – such is the irony of war – carried out a nineteen-minute attack on the southern German town of Pforzheim, famous as a centre of precious stones and jewellery. The Pathfinder force employed for this raid some of the leading crews used for the attack on Dresden, with the South African Edwin Swales of No 582 Squadron (Pathfinders) as Master Bomber. When the last of the 369 bombers had withdrawn, they were lighter by 1,825 tons of bombs that they had dropped; in the resulting fire-storm 304 of the 369 built-up acres of the town were devastated.[23] Of Pforzheim's inhabitants, just

under twenty thousand were killed in the attack, almost one in four of the town's inhabitants.[24] Squadron Leader Swales was killed when his crippled Lancaster crashed into power lines in Belgium two hours later, after his crew had baled out (he was posthumously awarded the Victoria Cross).[25]

The sudden death of twenty thousand people, burned alive in the space of twenty minutes in their own homes, merited only the barest mention in the British press, and even less in the German. In Britain's Official History of the Strategic Air Offensive, published in 1961, the Pforzheim raid rates two words in one footnote; such was the face of the closing offensive against Germany's cities.

[1] Air Ministry Bulletin No.17,493, 8:46 A.M., Feb 14, 1945 (British Ministry of Defence).

[2] Bomber Command Weekly Digest, secret, No.148; quoted to the author by Air Ministry, Air Historical Branch 5.

[3] Six and nine P.M. news bulletin transcripts Feb 14, 1945 (BBC archives, Caversham).

[4] *NewYork Herald Tribune*, Feb 12, 1953.

[5] Published in *Völkischer Beobachter*, Berlin edition, Feb 15, 1945; there is no further reference to Dresden in the *VB* until Mar 6, 1945.

[6] BBC Monitoring Reports (confidential), Nos.2,039–2,045, Feb 14–19, 1945 (Imperial War Museum archives, London).

[7] *Daily Telegraph*, London, Feb 17, 1945.

[8] This and the following are based on *The Army Air Forces inWorldWar II: Europe: Argument toV–E day, Jan 1944 to May 1945* (Chicago, 1951), vol.iii, 731–2, and on the published histories of the 34th, 100th, 384th, 390th, 401st, 441st, and 447th Bombardment Groups.

[9] *The Times*, London, Feb 17, 1945.

[10] *The Army Air Forces inWorldWar II: Europe: Argument toV–E day, Jan 1944 to May 1945* (Chicago, 1951), vol.iii, 726–7.

[11] US War Dept., message CM–IN–18753, Feb 19, 1945.

[12] This follows information from Air Commodore C M Grierson to the author.

[13] Associated Press dispatch, Feb 16, 1945; quoted by R Stokes. M.P., in *Hansard*, Parliamentary Debates, vol.408, col.1901; Washington *Evening Star*, Feb 18, 1945 (Hoover Library: Frederick

Anderson papers).

[14] US War Dept., message CM–IN–39730, Feb 18, 1945

[15] US War Dept., message CM–OUT–39222, 39730, 39954, Feb 17, 18, 19, 1945, cited in *The Army Air Forces in World War II: Europe: Argument to V–E day, Jan 1944 to May 1945* (Chicago, 1951), vol.iii.

[16] Walter Bedell-Smith to Spaatz, Feb 6, 1945 (Library of Congress: Carl F Spaatz papers, box 17).

[17] Spaatz to Arnold, (UA 64462), Feb 18, 1945 (Library of Congress: Carl F Spaatz papers, box 20; author's film DI–127); and US War Dept. messages CM–IN–18652 and 18745, Feb 18 and 19, 1945.

[18] Arnold to Spaatz, Feb 18, War 39730.

[19] Anderson for Spaatz to Arnold, (UA64470) Feb 18, 1945 (Library of Congress: Carl F Spaatz papers, box 20; author's film DI–127).

[20] General George C McDonald to Anderson, Feb 21, 1945 (Hoover Library: Frederick L Anderson papers).

[21] Berlin correspondent of *Expressen*, Stockholm, Feb 16: in News Digest, Feb 19, 1945 (English translation) in 2pp. SHAEF file, 'Dresden Attack,' ca. Mar 1945, document No.506.55a (Maxwell AFB: USAF Historical Division Archives).

[22] *Svenska Dagbladet*, Feb 17: in News Digest, Feb 19, 1945 (ibid.)

[23] Records of British Bombing Survey Unit.

[24] *Statistisches Jahrbuch der deutschen Gemeinde* (38th edition). – Pforzheim, a city of originally 78,320 inhabitants, had only around 65,000 on the night of Feb 23, 1945. By Oct 1945, with much of the city still under ruins, 7,200 of the air raid victims had been buried, of whom 2,432 could not be identified. In 1948 the city authorities published an initial estimate of the remaining casualties in *Verwaltungsbericht und Statistik der Stadt Pforzheim 1945–1952. Das Stadtgeschehen 1939–1945* , p.13. In Apr 1954 the city's statistical bureau concluded that at least 20,277 had died in the wartime air raids (including the 388 in the raids other than that of Feb 23, 1945); this figure was reached by adding the 7,630 officially reported deaths to the 12,647 listed as still missing in the files of the police and the food office, and in the evacuee register.

[25] Esther Schmalacker-Wyrich: *Pforzheim 23. Februar 1945. Der Untergang einer Stadt* (Pforzheim, 1980); and (using Allied archives) Ursula R Moessner-Heckner, *Pforzheim. CodeYellowfin* (Sigmaringen, 1991).

A Serious Query

In spite of the anxiety of the American secretary for war about public opinion about the Dresden tragedy, a further American daylight attack was launched on March 2, 1945 by the U.S. Strategic Air Force's Third Air Division. Over 1,200 bombers, escorted by all fifteen fighter groups, took off soon after 6:30 A.M. to attack oil refineries at Magdeburg, Ruhland, and Bohlen, and a tank plant at Magdeburg. Once again as the result of weather unfavourable to precise attacks the marshalling yards at Dresden and Chemnitz were reported as having been attacked as secondary targets.[1] In Dresden the attack was noted as lasting from 10:26 until 11:04 A.M., the bombers flying over the city in wave waves and apparently attacking many different targets. Local observers of the raids suggested that the attack had been intended to destroy the Dresden–Pirna railroad line, but that the smoke-rocket markers fired by the pathfinder aircraft had been displaced by the wind.

The presence of all fifteen fighter groups in this operation was an indication of the extent to which the dreaded German Me–262 jets were staging a last stand. The Germans had scrambled three large formations of fighters and directed them to Berlin, wrongly anticipating an attack on the Reich capital. Finally some seventy five of them headed for Dresden and the nearby Ruhland area, where they pounced on the Third Air Divisions Fortresses

At 10:17 A.M., with Dresden city still nine minutes' flying time away, the first formations of jets attacked the leading wing of bombers, while slower piston-engine fighters attacked the rear groups decoying the escort American fighters from the front. The thirty-five jets attacking the head of the formation peeled off and attacked in wings of three jets each, closing in from all positions and levels. By 10:35, when

the jets withdrew through lack of fuel, six of the leading Bombardment Group's aircraft had been destroyed. The remaining 406 bombers were recorded as having attacked the 'marshaling yards in Dresden' in the Eighth Air Force Target Summary. The reports of the individual Bombardment Groups suggest however that as before the marshalling yards were just a euphemism for the city area. Thus the 34th Bombardment Group, a radar pathfinder force, which was heavily assailed by the jets, being in the leading wing, found its mean point of impact in the 'centre of the city,' and the lead bombardier noted that the briefed purpose for the attack (according to his private log) was 'the complete destruction of the town.' Similarly target photographs taken by the 44th Bombardment Group, while on the one hand displaying a target city less than three-tenths covered by cloud, on the other hand showed the carpet of bombs from the Group – 288 five hundred pound general purpose explosive bombs and 144 five hundred pound incendiaries – detonating in the township of Dresden–Übigau two miles from the nearest railroad yards (and the site of the large British prisoner of war camp, from which a large contingent volunteered to assist in rescue work.)

Other Bombardment Groups were equally wide of the mark, if they were indeed aiming for the Dresden-Friedrichstadt marshalling yards. All the patterns of bombs were reported falling in areas widely separated from the yards. The 390th Bombardment Group report on its 'Mission 266' explained that the crews were diverted from the oil assignment to attack the great Dresden yards which had not been bombed severely. The 100th Bombardment Group reported attacking the Dresden 'factory area' as a secondary target after the failure of an attempt to bomb the Ruhland refinery, with 'good results.'

The damage was widespread, the only noteworthy success being the sinking of the steamer Leipzig, which had been converted into a hospital ship to meet the needs of the thousands of people injured in the main raids on Dresden two weeks before. The stick of bombs straddled the steamer, blowing off the stern; the ship caught fire and sank slowly, with few survivors. In another incident a stick of bombs destroyed the camp; of Russian labourers at Laubegast.

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The Germans were still making propaganda capital out of the raids on Dresden, although they were still under-estimating the death toll. The figure current in Berlin government circles was over three hundred thousand, and the Berlin authority responsible for welfare in blitzed cities was conservatively preparing for a final toll of 120,000 to half a million; although the numbers bulldozed into mass graves in Dresden exceeded thirty thousand already, as late as March 1945 a German official propaganda leaflet dropped on Italy still spoke only of the 'ten thousand refugee children' who had been killed. While on the one side it reproduced a dreadful photograph of two burned and maimed children from the ruins of Dresden, on the other it awarded the Order of the White Feather now to General Doolittle in these terms: 'The people of Dresden, as well as the prisoners of war and the foreign workers there, hereby award the Order of the White Feather and the Symbol of the Yellow Heart to Lieutenant-General James Doolittle of the United States Air Force for conspicuous cowardice – and for having turned into a sadist.'[2]

On March 6 the German propaganda campaign achieved a success that it could hardly have hoped for: the occasion was the first full-scale debate on the air offensive since February 1944, when the Bishop of Chichester had raised the whole issue of his government's area bombing of civilian targets in Europe. This time when Mr Richard Stokes took the floor at 2:43 P.M. he had the advantage of a British public more sympathetic toward the question than previously. Dr Bell, the Bishop of Chichester, had made his speech in the House of Lords in February 1944 at the height of the Baby Blitz and public opinion in London was adamantly against him although he is known to have received hundreds of letters supporting his stand. Now, in March 1945, with the end of the war coming into sight, and with only the V–2 rocket threat still looming over it, the public was more vulnerable to the descriptions, published in daily newspapers, of the carnage wrought by these raids. As Stokes rose to speak, the Secretary of State for Air, Sir Archibald Sinclair, pointedly rose and left the chamber; he refused to be drawn back even when Stokes pointedly called attention to his absence.

In his speech, Stokes returned to the theme that he had been pressing ever since 1942: that he was unconvinced by the minister's repeated insistence on the precision of Bomber Command's attacks; that he doubted the advantage of what he announced he would call 'strategic bombing', and that it was very noticeable that the Russians did not seem to indulge in 'blanket bombing' but did well enough without it. He could see the advantage, he said, of their being able to say later that it was the western capitalist states which had perpetrated all these dirty tricks, while the Soviet air force had limited its bombing activities, as it had, to what Mr Stokes called 'tactical bombing'. (in saying this Stokes displayed a remarkable prescience, as post-war years would demonstrate.)

The question was, he insisted, whether at this stage of the war the indiscriminate bombing of large population centres was a wise policy. He read to the House an extract from a report of the *Manchester Guardian*, based on a German telegraphic dispatch, which contained the remark that tens of thousands of Dresdeners were now buried under the ruins of the city, and that even an attempt at the identification of the victims was proving hopeless. 'What happened on that evening of 13th February?' the newspaper had asked. 'There were a million people in Dresden, including 600,000 bombed out evacuees and refugees from the east. The raging fires which spread irresistibly in the narrow streets killed a great many for lack of oxygen.'

Stokes observed that the Russians seemed to be able to capture great cities without first blasting them to pieces, and he asked a question which clearly exercised even the prime minister's mind: 'What are you going to find, with all the cities blasted to pieces, and with disease rampant? May not the disease, filth, and poverty which will arise be almost impossible either to arrest or to overcome? I wonder very much whether it is realised at this stage. When I heard the Minister [Sir Archibald Sinclair] speak of the "crescendo of destruction," I thought, What a magnificent expression for a Cabinet Minister of Great Britain at this stage of the war.'

Stokes called attention to the Associated Press dispatch from the S.H.A.E.F. headquarters, since recalled, and indeed read it out in full, thereby putting it on record for posterity. He asked once again the question he had asked so often before: Was terror bombing now part of official government policy? If sop, then why was the

S.H.A.E.F. decision released and then suppressed? And why was it that in spite of the reports having been broadcast from Radio Paris and printed throughout America, and even relayed back to the German people, the British people were, as he put it, 'the only ones who may not know what is done in their names?' It was 'complete hypocrisy' to say one thing and do another.

In conclusion Mr Stokes asserted that the British government would live to rue the day that it had permitted these raids and that the raids would stand for all time as a 'blot on our escutcheon'. These sentiments were doubly significant in that – expressed in more formal language – they were to reappear in a minute addressed only a few days later by the prime minister to his chiefs of staff, inviting Bomber Command to reconsider its terror campaign.

Stokes finished his speech shortly after three P.M., but he had to wait until nearly eight P.M. for a reply from the government. Commander Brabner, the Joint Under-Secretary of State for Air, replied for Sinclair, altho8ugh the latter had by now resumed his seat. He pointed out at once that although the S.H.A.E.F. report had been received in London on February 17, it had been denied almost immediately. He took this opportunity to repudiate the report as well, adding: 'We are not wasting bombers or time on purely terror tactics. It does not do the hon. Member justice to come here to this House and suggest that there are a lot of Air Marshals or pilots or anyone else sitting in a room trying to think how many German women and children they can kill.'

Stokes objected that when the Associated Press dispatch first circulated, and London raised objections to its publication, S.H.A.E.F.'s initial reaction was that it could not be suppressed 'as it represented official S.H.A.E.F. policy.' Stokes promised to back this up with documentary evidence. This time Sir Archibald Sinclair himself sprang to his feet and retorted that the report was certainly not true, and Mr Stokes might take that from him.

That was the end of the last wartime debate on Bomber Command's policies. The British government had been able to safeguard its secret from the day that the first area raid was launched against Mannheim on December 16, 1940, right to the very end.

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A similar controversy had arisen over the Dresden and Berlin raids in Washington; not the loud parliamentary wrangling which had characterised the dispute in London, but a more discreet exchange of letters between political and military leaders. On March 6 General George C Marshall was instructed to reply to an inquiry from the American Secretary for War, Mr Henry Stimson, that Dresden had been bombed because it was a communications centre of great importance through which reinforcements were passing to the Russian front; Marshall added that standard bombing methods had been used in the Allied air attacks on Dresden and that the Russians had 'requested' its neutralisation.[3] Post-war research by the American air force historian Joseph W Angell Jr. has confirmed that no documentary evidence has ever been produced of any Soviet request specifying Dresden as a target for attack; Angell suspects that General Marshall read too much into the original memorandum by the Soviet General Antonov at Yalta, which did mention two eastern population centres but not Dresden. In Washington the controversy subsided peacefully, and behind closed doors.

In fact the Americans later launched their largest independent attack (572 sorties) on 'the marshalling yards' in Dresden on April 17 – a raid which the American official history does not mention.

In London, however, the private debate did not decline. Indeed when the first lurid reports began to arrive in London from neutral sources it actually increased. Between March 22 and March 24 one of the leading newspapers in Zürich published three articles by a Swiss observer who had witnessed the raids on Dresden. There had been a sizeable Swiss population in the city. After the raids he had been able to escape to Switzerland, and tell his story there. His report was one of the first authentic descriptions of the aftermath of the raids, and confirmed that the city had been devoid of shelters, defences, and in his opinion real military targets.

It is also known that on February 22 a representative of the International Red Cross had visited Dresden to inquire after the fate of the prisoners of war; his report to Geneva may well have contained other information than about the numbers of prisoners among the casualties.[4]

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The creation of a scapegoat who could convincingly be blamed for the brutality of the bombing offensive presented few difficulties, given that the prime necessity for the bomber weapon was past. 'The prime minister and others in authority,' wrote the Official Historians in 1961, in language that was of significant weight given that Mr Churchill was still alive, 'seemed to turn away from the subject as though it were distasteful to them, and as though they had forgotten their own recent efforts to initiate and maintain the offensive.'[5] 'The conduct of the area offensive reinforced the doubts which some people had long since felt about the strategic air offensive on morale grounds,' the Official Historians also commented. The Dresden operation had been 'undertaken for complicated reasons not wholly connected with the general area campaign', and 'even led to some severe words, though not on morale grounds, from the prime minister, though it was he himself who contributed much of the incentive to carry it out.'

What had led to these severe words? Originally Mr Churchill, then still at Yalta, had paid little attention to the raids and their outcome. A telegram had gone to him from London reporting the day's war events, and in this the bombing of Dresden had been reported in the barest outline, as the tenth of eleven items.[6] But during March 1945 Anthony Eden had spoken to him about the mounting foreign concern at the carnage, and the prime minister himself had spent several days in Germany to watch Field Marshal Sir Bernard Montgomery's crossing of the Rhine; here he had seen much evidence of the damage that his bombers had caused. There was certainly mounting disquiet about continuing the bombing on this scale. General Eisenhower's adviser Major General Everett S Hughes wondered in his diary during February whether the American bombers had not of late actually hampered the war effort, and he made this note: 'Urge Ross to object to any more bombing of railroads in Germany. We will need them.'[7]

Something of the same reflectiveness motivated Mr Churchill. On March 28 he signed an extraordinary minute on the subject of the continued air offensive against German cities, and addressed it to his Chiefs of Staff committee and to Sir Charles

Portal. It was a remarkable document and owed much of its argument to the original warning of Richard Stokes in the House of Commons.

> It seems to me [wrote Mr Churchill] that the moment has come when the question of bombing of German cities simply for the sake of increasing the terror, though under other pretexts, should be reviewed. Otherwise we shall come into control of an utterly ruined land. We shall not, for instance, be able to get housing materials out of Germany for our own needs because some temporary provision would have to be made for the Germans themselves.

Where Mr Stokes had spoken of Dresden as an eternal 'blot on the escutcheon' of the British government, the prime minister was more keen to accord the blame to the bomber commanders:

> The destruction of Dresden [Churchill continued] remains a serious query against the conduct of Allied bombing. I am of the opinion that military objectives must henceforward be more strictly studied in our own interests rather than that of the enemy.
>
> The Foreign Secretary has spoken to me on this subject, and I feel the need for more precise concentration upon military objectives, such as oil and communications behind the immediate battle-zone, rather than on mere acts of terror and wanton destruction, however impressive.[8]

Two interpretations have been placed upon this unusual document: either it was worded in haste, in the heat and turmoil of great events, and at a time when the Prime Minister was under great personal strain; or it could be construed as a carefully phrased attempt at burdening for shifting the responsibility for the Dresden raids onto his Chiefs of Staff and, perhaps more appositely, onto Bomber Command and its commander-in-chief Sir Arthur Harris. Whatever the reason, it stands out as an unabashed attempt at denigrating a senior Allied commander in the field and to mask from the view of future historians the more than constitutional responsibility

that the prime minister in fact bore for the February bombing offensive against the eastern population centres.

The senior officers at Bomber Command headquarters learned of the existence of the Churchill minute almost immediately. Sir Robert Saundby, Harris' deputy at High Wycombe, had a daily telephone conversation with Sir Norman Bottomley on the scrambler telephone, and the deputy Chief of the Air Staff told him of the row in London, and of the consternation felt by the Air Staff at this 'monstrous insinuation' by the prime minister – namely that he had been deliberately misled by his military advisers. What the Air Staff found surprising, Saundby learned, was Mr Churchill's suggestion that Bomber Command had been waging a purely terror offensive on its own initiative, 'though under other pretexts'. Had not Mr Churchill written dozens of minutes in precisely the opposite sense, demanding the pounding – indeed, the 'basting' – of German cities and refugees within them? 'To the chiefs of staff,' said Saundby, 'it looked as though it was an attempt on [the prime minister's] part to pretend that he had never advocated or even ordered that sort of thing. It was felt that it was not a fair picture of the prime minister to put on record, in view of what he had previously said and done.... At that stage, however, the prime minister was beginning to look beyond the end of the war.'

It was to the credit of the Chief of the Air Staff, Sir Charles Portal, that he declined to accept the Churchill minute of March 28. With more indignation than veracity he explained to his fellow chiefs of staff the next day that in bombing large cities their aim had always been to destroy the industries and transportation services centred in those cities 'and not to terrorise the civilian population of Germany.'[9] Churchill, he told his colleagues, had evidently written in haste or fatigue, although it was admittedly an important issue, and he felt it would be 'unfair to the prime minister himself' to allow the document to stand in the existing form. He promised to tackle Mr Churchill about it that evening. When did so the prime minister had no alternative but to agree that his minute had been 'rough', and to withdraw it; he invited Portal himself to rephrase it in silkier terms.[10]

It was not often that Mr Churchill was obliged to eat his words; but this time he did. The resulting new draft omitted any direct reference either to Dresden on the

one hand, or to the advantage of 'terror bombing' to the enemy on the other; it still began with the ambivalent reproach: 'It seems to me that the moment has come when the question of the so called "area bombing" of German cities should be reviewed from the point of view of our own interests,' and it added in significantly different terms from those of the captious minute of March 28: 'We must see to it that our attacks do not do more harm to ourselves in the long run than they do to the enemy's immediate war effort.' This minute was accepted without reservation by the Air Staff; as Sir Robert Saundby has pointed out, it tallied closely with their own opinions in any case.

Churchill accepted the new wording and the rest of the redrafted minute and signed it on April 2.[11] That he was not happy with this markedly milder minute was indicated by the abbreviation of its terms in his published memoirs.[12] If, as officers at Bomber Command had suspected when they first learned of the contents of his March 28 minute, it had been his intention thus to divest himself of responsibility for the Dresden tragedy – 'looking beyond the end of the war,' as Saundby had put it – the attempt had come to grief on the unprecedented reluctance of the Air Staff to accept the document with the deceptive language in it was first couched.

Two facts seem significant. Firstly, that provided the reference to the Allied bomber commands' burden of guilt for the Dresden raids was omitted, the Air Staff, who were well aware of where the responsibility lay, raised no further objection to the minute, although the unbridled reference to 'terror' raids appears to have perturbed them too. Secondly, that as early as that date the prime minister had fully grasped the nature of the charge which was to be levelled in post-war years against the western powers for the Dresden massacre, and he was reluctant to share in the recriminations which were bound to ensue.

Sir Charles Portal passed his views on the controversy on to General Hap Arnold in Washington. Arnold wrote informing Spaatz that there was no further point in area attacks on German cities. The reference to 'area attacks' touched raw nerves. General Anderson wrote to Spaatz, 'The U.S. Strategic Air Forces have not at any time had a policy of making area bombing attacks on German cities. Even our attacks

against the Berlin area were always directed against military objectives.' The difference was purely semantic.[13]

In post-war years the prime minister continued his policy of dissociating himself from having ordered the attack and even from having known that Dresden was packed with refugees. His mind already failing, he asked Victor Gollancz, a publisher friend, 'Is it true that some sixty thousand refugees were killed in the air raid on Dresden?' The publisher replied that it was beyond question that a large number of refugees had been killed; the only question was, how many. He had read in an American services newspaper – so far as he could recollect – that the number killed was far higher than the sixty thousand he had mentioned, and in fact something more like two hundred thousand. To this Mr Churchill replied, 'Shocking, shocking.'[14] 'Mr Gollancz,' he said, according to another version, 'they never told me we were bombing civilians.'[15]

In 1950, when Churchill's memory was fading – though he still had fifteen years to live – Hilary St George Saunders, the official historian of the Royal Air Force, asked him for his recollections of the air raid on Dresden. 'In February 1945,' he told the prime minister, 'there was a bomber attack on Dresden. Not less than 100,000 persons were killed. It was the most serious single blow against Germany by Bomber Command.' Churchill however professed not to recall anything about it. 'I thought the Americans did it,' he told the historian, and he advised: 'Air Chief Marshal Harris would be the person to contact.'[16]

This was of course several years before the publication in 1961 of the official history of the Strategic Air Offensive against Germany, and it is perhaps unkind to recall here how on January 26, 1945 the prime minister himself had asked the Secretary of State for Air, Sinclair, whether 'Berlin and no doubt other large cities in Central Germany' should not now be considered especially attractive targets, as main communications centres through which the bulk of the refugee traffic was moving; it was as the direct result of this prompting that Sir Arthur Harris was directed to have his bombers attend to Dresden, Leipzig, and Chemnitz.

The hostility of the foreign secretary to the bombing offensive on this scale, as expressed in the second paragraph of Mr Churchill's original draft minute, was also

of relatively recent origin. Only three years before, in a letter to Sir Archibald Sinclair, Mr Eden had advocated attacking German towns even though they might contain no major targets of importance:

> The psychological effects of bombing [he wrote] have little connexion with the military of economic importance of the target; they are determined solely by the amount of destruction and dislocation caused.... I wish to recommend therefore that in the selection of targets in Germany, the claims of smaller towns of under 150,000 inhabitants which are not too heavily defended, should be considered, even though those towns contain only targets of secondary importance.[17]

Sir Arthur Harris remained loyal to his friend and prime minister until the end of the war. Never once in the post-war years did he call public attention to the part which Mr Churchill had himself played in initiating the Dresden raids. Characteristically, even when he was personally informed that the official history included this evidence of the manner in which the prime minister had attempted to disown him and the destruction of Dresden, Harris refused at first to believe it could be true.

'Looking back on it now,' said Sir Robert Saundby, Harris's deputy, years later, 'I think few people would say that it really was a military necessity. It was one of those terrible things that do happen occasionally in war.' 'Those who approved it,' he continued, 'were neither wicked nor cruel. But I think that it's possible that they were so remote from the harsh realities of war that they didn't fully realize the appallingly destructive character of their bombardment by the spring of 1945.'[18] Wing Commander Maurice Smith, whose tactical expertise as Master Bomber during the first raid had ensured its brilliant success, would say: 'I don't feel I could say anything useful about whether it was justified. I don't think one looks for justification in war time. Certainly the young man in uniform [does not]. I did as I was told.'[19]

The prime minister, in his memoirs, glossed over the enormity of the Dresden massacre in two lines, describing the city as a 'centre of communications on the eastern front'; he made no attempt to depict the horrors inflicted on the city, nor the controversial background to, and consequences of, the raids. Harris was an officer

who was neither vindictive nor demonstrative, and even if he had learned the nature of the March 28, 1945 minute which the prime minister had intended to address to the chiefs of staff, it is unlikely that he would have commented on it.

In the years that passed following the Dresden affair, the number of times that Harris expressed himself in print about the part which he and his gallant force had played in winning the war were few indeed; not so reticent were his critics, of whom there were legion. The post-war Labour government refused to accept his official Despatch (allegedly on the grounds that it contained no statistical appendices[20]). The government harboured a deep resentment against a man who had commanded such admiration and respect among his men, and who had inevitably in the course of the war tangled with many of the Labour Party's leading members. Clement Attlee, the post-war Labour prime minister, went on record in 1960 as saying that Harris was 'never frightfully good'; he insisted that 'all that attack join their cities' did not pay as much as if he had made more effective use of his bombs – he might, for instance, have 'concentrated more on military targets.'[21] Harris contented himself with replying that the strategy of the bomber force which Earl Attlee was criticising was decided by His Majesty's Government, of which Attlee was for most of the war himself a leading member. 'The decision to bomb industrial cities for morale effect was made, and in force,' Harris insisted, 'before I became C.-in-C. Bomber Command.' No commander-in-chief would have been authorised to make such decisions.[22] Even then Harris afterwards admitted his regret at having been stung in participating in the public bombing controversy.

Up to May 1945, as we have seen, the British public had been kept securely in the dark about every aspect of the continued strategic air offensive against Germany. Then, with the laying down of arms, the first flow of British civilians and service personnel to the continent began. Mercifully for the wartime British government, Dresden, where thousands of victims were still being recovered each week from the ruins, was now behind the Iron Curtain which Adolf Hitler's newspapers had already proclaimed to be descending across Europe, on that morning of February 13, 1945, the day of the R.A.F.'s first raids on the city; the Soviets would not permit even the American strategic bombing survey teams to visit the wrecked city. For a few weeks

the survey teams made feverish notes in Leipzig, Magdeburg, and Halle – cities still behind the American lines – before in accordance with the international covenants these cities too were relinquished to the Russians. Mercifully, as the Military Tribunal opened in Nuremberg, the Russians showed little inclination to 'expose' the Allied massacre in Dresden.

Harris did not lack his champions in the House of Commons. Many former Bomber Command officers and personnel were among the new Members returned in the 1945 election. One of them called attention on March 12, 1946 to the question whether Bomber Command's operations in World War Two were military and strategically justified:

> This matter is precipitated in my mind by the signal fact that in the terminal honours, at the end of last year, in the New Year's Honours List, the name of the chief architect of Bomber Command, Sir Arthur Harris, was a conspicuous absentee. I know it will be agreed that in the Honours List six months previously the commander-in-chief of Bomber Command received the Order of the G.C.B. [Garter Companion of the Bath]. But he retired from the Royal Air Force without any public expression of gratitude for the word – not that he had done – but which his Command had done under him. He left the country in a bowler hat …
>
> There is a feeling amongst the men who have served in Bomber Command that what appears to be an affront to the commander-in-chief of that Command is in fact an affront to the people who served in that Command, and of course to those who suffered casualties. We feel that if our organisation did a good job of work in all respects,. as we believe it did, the least that should be done is that an honour should be conferred on its head, comparable to the honours paid to the commanding officers of similar units, particularly in the other services.[23]

Sir Arthur Harris proved the perfect scapegoat for what had happened in Dresden. He remained unhonoured (apart from a belated baronetcy in 1953) and unsung, with the men of his former command neither remembered in a national memorial nor even allowed a campaign medal for their pains, for their service in the most

bloody and long-drawn out battle of the war. His squadrons had dropped 955,000 tons of bombs – two-thirds (658,000 tons) on Germany, most of the rest on France. They had lost 8,700 bombers in the process.[24] For one year Harris stayed silent about his part in the war; then he decided to leave the United Kingdom to take up a commercial appointment in South Africa where he had spent most of his youth.

On February 13, 1946, the former commander-in-chief of R.A.F. Bomber Command sailed from Southampton on the first stage of his journey into voluntary exile. That night, throughout eastern and central Germany, at 10:10 P.M. the church bells began to peal. For twenty minutes the bells rang out across the territories now occupied by a force as ruthless as any that the bomber offensive had been launched to destroy. It was the first anniversary of the worst single massacre in European history.

[1] *The Army Air Forces in World War II: Europe: Argument to V–E day, Jan 1944 to May 1945* (Chicago, 1951), vol.iii., 739; the author has also relied on the records of former Dresden citizens, and the account in the 34th Bombardment Group's publisher history. Details were supplied by Lieutenant Malcolm E Corum, lead bombardier of the 34th Bombardment Group, Third Air Division. Further information was extracted from the published histories of the 100th, 390th, 401st and 447th Bombardment Groups; also from the Camp Diary of Arbeitskommando 1326 in Dresden's Scharfenberger Strasse.

[2] Propaganda leaflet 1325/3–45, 'The White Feather for General Doolittle.'

[3] G C Marshall, memorandum for Stimson, Mar 6, 1945, drafted by Loutzenheiser, cited by Walter F Angell Jr., 'Historical Analysis of the 14–15 February 1945 Bombings of Dresden.' (USAF Historical Division Archives); cf. *The Army Air Forces in World War II: Europe: Argument to V–E day, Jan 1944 to May 1945* (Chicago, 1951), vol.iii.731.

[4] Sherrod East, Chief Archivist of World War II Records Division, National Archives, Washington, to the author.

[5] Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iii.

[6] COS to Churchill, 'Fleece' No.433, Feb 14, 1945 (PRO file, PREM.4/78/1).

[7] Everett S Hughes diary, Feb 24, 28, 1945 (Library of Congress, Manuscript Division: Everett S Hughes papers)

[8] Churchill, personal telegram to COS, D.83/5, top secret, Mar 28, 1945 (AHB file CMS.608; copied in Christ Church, Oxford: Portal papers: PM file 6(14); and PRO file PREM.3/12); cf. Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iii, 112.

[9] COS Committee, Mar 29, 1945 (AHB file CMS.608; and PRO file CAB.79/31).

[10] Portal to Sinclair, Mar 30 (AHB file CMS.608); and to Churchill, Mar 30, 1945 (PRO file PREM.3/12).

[11] Churchill, personal telegram to COS, D.89/5, top secret, Apr 2, 1945 (PRO file PREM.3/12; copied in Christ Church, Oxford: Portal papers, PM file 6[14]); cf. Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iii, 117.

[12] Winston S Churchill, *The SecondWorldWar*, vol.vi, 470–1.

[13] Arnold to Spaatz, Apr 9; Anderson to Spaatz, Apr 10, 1945 (Library of Congress: Carl F Spaatz papers, box 21).

[14] Mr Victor Gollancz to the author. Gollancz had hoped to published the first edition of this book, but when his agent Michael Sissons asked if the author was a 'fascist' the author dismissed Sissons and signed the book up with William Kimber Ltd instead.

[15] Henry Regnery, *Memoirs of a Dissident Publisher* (New York, 1979), 40f.

[16] Telephone conversation, May 11, 1950; and Churchill's note of Mar 12, 1950 (Churchill Papers, file 4/390a; cited by Martin Gilbert, *Winston S. Churchill*, vi: 'Road to Victory, 1941–1945' (London, 1986), 1220n.

[17] Eden to Sinclair, Apr 15, 1942, reproduced in Dr Noble Frankland & Sir Charles Webster, *The Strategic Air Offensive against Germany* (HMSO, London, 1961) vol.iii, 115.

[18] Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

[19] Canadian Broadcasting Corporation television interview transcript, 1965 (Author's microfilm DI–35).

[20] Sir Arthur Harris to the author.

[21] *The Sunday Times*, Nov 27, 1960.

[22] Ibid., Jan 22, 1961.

[23] Hansard, Parliamentary Debates, vol.420.

[24] Lord Cherwell, minutes dated Apr 18, May 25, 1945 (Nuffield college, Cherwell papers).

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